OWNER'S MANUAL

75 lb. HD LAUNDRY DRYER

Gas: Natural and LP

Steam

Electric

Technical specifications

Installation instructions

Operating instructions

Maintenance

HD75.1

Cissell Manufacturing Co.
831 S. First St. - P.O.Box 32270 - Louisville, Ky. - 40232-2270
Tel: (502) 587-1292 - Fax: (502) 585-2333
Sales Fax: (502) 585-3625 - Service/Parts Fax: (502) 681-1275

THIS MANUAL MUST BE GIVEN TO THE EQUIPMENT OWNER

MAN HD2075 3/00 Rev. B

D0565R1
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IMPORTANT NOTICES—PLEASE READ

For optimum efficiency and safety, we recommend that you read the Manual before operating the equipment. Store this manual in a file or binder and keep for future reference.

WARNING: For your safety, the information in this manual must be followed to minimize the risk of fire or explosion or to prevent property damage, personal injury, or loss of life.

- Do not store or use gasoline or other flammable liquids or vapors in the vicinity of this or any other appliance.

- WHAT TO DO IF YOU SMELL GAS

- **Do not try to light any appliances.**
- **Do not touch any electrical switch; do not use any phone in your building.**
- **Clear the room, building, or area of all occupants.**
- **Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.**
- **If you cannot reach the gas supplier, call the fire department.**

Installation and service must be performed by a qualified installer, service agency or the gas supplier.

WARNING: In the event the user smells gas odor, instructions on what to do must be posted in a prominent location. This information can be obtained from the local gas supplier.

WARNING: Wear Safety Shoes to prevent injuries.

WARNING: Purchaser must post the following notice in a prominent location:

FOR YOUR SAFETY
Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

WARNING: A clothes dryer produces combustible lint and should be exhausted outside the building. The dryer and the area around the dryer should be kept free of lint.

WARNING: Be safe, before servicing machine, the main power should be shut off.

ATTENTION: L'ACHETEUR DOIT PLACER L'AVERTISSEMENT SUIVANT DANS UN ENDROIT CLAIR ET VISIBLE:

AVERTISSEMENT. Assurez-vous de bien suivre les instructions donnees dans cette notice pour reduire au minimum le risque d'incendie ou d'explosion ou pour eviter tuot dommage materiel, toute blessure ou la mort.

__ Ne pas entreposer ni utiliser d'essence ni d'autres vapeurs ou liquides inflammables dans le voisinage de cet appareil ou de tout autre apparell.

__ **QUE FAIRE SI VOUS SENTEZ UNE ODEUR DE GAZ:**

- Ne pas tenter d'allumer d'apparell.
- Ne touchez a aucun interrupteur. Ne pas vous servir des telephones se trouvant dans le batiment ou vous vous trouvez.
- Evacuez la piece, le batiment ou la zone.
- Appelez immediatement votre fournisseur de gaz depuis un voisin. Suivez les instructions du fournisseur.
- Si vous ne pouvez rejoindre le fournisseur de gaz, appelez le service des incendies.

__ l'installation et l'entretien doivent etre assures par un installateur ou un service d'entretien qualifie ou par le fournisseur de gaz.

ATTENTION: L'ACHETEUR DOIT PLACER L'AVERTISSEMENT SUIVANT DANS UN ENDROIT CLAIR ET VISIBLE:

POUR VOTRE SECURITE

Ne pas entreposer ni utiliser d' essence ni d'autres vapeurs ou liquides inflammables dans le voisinage de cet appareil ou de tout autre appareil.

WARNING: To avoid fire hazard, do not dry articles containing foam rubber or similar texture materials. Do not put into this dryer flammable items such as baby bed mattresses, throw rugs, undergarments (brassieres, etc.) and other items which use rubber as padding or backing. Rubber easily oxidizes causing excessive heat and possible fire. These items should be air dried.

WARNING: Synthetic solvent fumes from drycleaning machines create acids when drawn through the dryer. These fumes cause rusting of painted parts, pitting of bright or plated parts, and completely removes the zinc from galvanized parts, such as the tumbler basket. If drycleaning machines are in the same area as the tumbler, the tumbler's make-up air must come from a source free of solvent fumes.

WARNING: Do not operate without guards in place.

WARNING: Check the lint trap often and clean as needed but at least a minimum of once per day.

WARNING: Alterations to equipment may not be carried out without consulting with the factory and only by a qualified engineer or technician. Only **Manufacturer's** parts may be used.

WARNING: Remove clothes from dryer as soon as it stops. This keeps wrinkles from setting in and reduces the possibility of spontaneous combustion.

WARNING: Be Safe - shut main electrical power and gas supply off externally before attempting service.

WARNING: Never use drycleaning solvents, gasoline, kerosene, or other flammable liquids in the dryer. ***FIRE AND EXPLOSION WILL OCCUR. NEVER PUT FABRICS TREATED WITH THESE LIQUIDS INTO THE DRYER. NEVER USE THESE LIQUIDS NEAR THE DRYER..***

WARNING: Do not place items exposed to cooking oils in your dryer. Items contaminated with cooking oils may contribute to a chemical reaction that could cause a load to catch fire.

WARNING: Never let children play near or operate the dryer. Serious injury could occur if a child should crawl inside and the dryer is turned on.

WARNING: Never tumble fiberglass materials in the dryer unless the labels say they are machine dryable. Glass fibers break and can remain in the dryer. These fibers cause skin irritation if they become mixed with other fabrics.

WARNING: Before operating gas ignition system - purge air from natural gas or propane gas lines per manufacturer's instructions.

WARNING: To reduce the risk of electric shock, disconnect this appliance from the power supply before attempting any user maintenance other than cleaning the lint trap. Turning the controls to the OFF position does not disconnect this appliance from the power supply.

CISSELL DRYER WARRANTY

The Cissell Manufacturing Company (Cissell) warrants all new equipment (and the original parts thereof) to be free from defects in material or workmanship for a period of two (2) years from the date of sale thereof to an original purchaser for use, except as hereinafter provided. With respect to non-durable parts normally requiring replacement in less than two (2) years due to normal wear and tear, and with respect to all new repair or replacement parts for Cissell equipment for which the two (2) year warranty period has expired, or for all new repair or replacement parts for equipment other than Cissell equipment, the warranty period is limited to ninety (90) days from date of sale. The warranty period on each new replacement part furnished by Cissell in fulfillment of the warranty on new equipment or parts shall be for the unexpired portion of the original warranty period on the part replaced.

With respect to electric motors, coin meters and other accessories furnished with the new equipment, but not manufactured by Cissell, the warranty is limited to that provided by the respective manufacturer.

Cissell's total liability arising out of the manufacture and sale of new equipment and parts, whether under the warranty or caused by Cissell's negligence or otherwise, shall be limited to Cissell repairing or replacing, at its option, any defective equipment or part returned f.o.b. Cissell's factory, transportation prepaid, within the applicable warranty period and found by Cissell to have been defective, and in no event shall Cissell be liable for damages of any kind, whether for any injury to persons or property or for any special or consequential damages. The liability of Cissell does not include furnishing (or paying for) any labor such as that required to service, remove or install; to diagnose troubles; to adjust, remove or replace defective equipment or a part; nor does it include any responsibility for transportation expense which is involved therein.

The warranty of Cissell is contingent upon installation and use of its equipment under normal operating conditions. The warranty is void on equipment or parts; that have been subjected to misuse, accident, or negligent damage; operated under loads, pressures, speeds, electrical connections, plumbing, or conditions other than those specified by Cissell; operated or repaired with other than genuine Cissell replacement parts; damaged by fire, flood, vandalism, or such other causes beyond the control of Cissell; altered or repaired in any way that effects the reliability or detracts from its performance, or; which have had the identification plate, or serial number, altered, defaced, or removed.

No defective equipment or part may be returned to Cissell for repair or replacement without prior written authorization from Cissell. Charges for unauthorized repairs will not be accepted or paid by Cissell.

CISSELL MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY, STATUTORY OR OTHERWISE, CONCERNING THE EQUIPMENT OR PARTS INCLUDING, WITHOUT LIMITATION, A WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, OR A WARRANTY OF MERCHANTABILITY. THE WARRANTIES GIVEN ABOVE ARE EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. CISSELL NEITHER ASSUMES, NOR AUTHORIZES ANY PERSON TO ASSUME FOR IT, ANY OTHER WARRANTY OR LIABILITY IN CONNECTION WITH THE MANUFACTURE, USE OR SALE OF ITS EQUIPMENT OR PARTS.

For warranty service, contact the Distributor from whom the Cissell equipment or part was purchased. If the Distributor cannot be reached, contact Cissell.

IDENTIFICATION NAMEPLATE

The Identification Nameplate is located on the rear wall of the dryer. It contains the dryer serial number, product number, model number, electrical specifications and other important data that may be needed when servicing and ordering parts, wiring diagrams, etc. Do not remove this nameplate.

Contents

SYMBOLS

The following symbols are used in this manual and/or on the machine. The numbers between () refer to the numbers on the machine surveys.

Symbol	Description	Symbol
	NOTE!	Rotation in two directions Rotation dans les deux sens Drehbewigung in zwei Richtungen Movimiento rotativo en los dos sentidos 
	Hot! Do Not Touch Heiß! Nicht Beruhren Haute temperature! Ne pas toucher Caliente! no tocar	Direction of rotation Sens de mouvement continu De rotation Drehbewegung in Pfeilrichtung movimiento Giratorio o rotatorio en el sentido de la flecha 
	dangerous voltage tension dangereuse Gefährliche elektrische Spannung tension peligrosa	End of Cycle 
	On Marche Ein Conectado	Caution Attention Achtung Atencion; precaucion 
	Off Arrêt Aus Desconectado	
	Start Demarrage Start Arranque de un movimiento	
	Emission of heat in general Emission de chaleur en general Warmeabgabe allgemein Emisión de calor	
	Cooling Refroidissement Kühlen Enfriamiento	

UNPACKING

Upon arrival of the equipment, any damage in shipment should be reported to the carrier immediately.

Upon locating permanent location of a unit, care should be taken in movement and placement of equipment.

See outline clearance diagrams for correct dimensions.

Remove all packing material such as: tape, manuals, skid, etc

Leveling: Use spirit level on top of dryer. Adjust leveling bolts on dryer (see adjustable leveling bolts in maintenance section).

Check voltage and amperes on rating plate before installing the dryer.

GENERAL INSTALLATION (ALL DRYERS)

The construction of the dryers permits installation side-by-side to save space or to provide a wall arrangement. Position dryer for the least amount of exhaust piping and elbows, and allow free access to the rear of dryer for future servicing of belts, pulleys and motors. Installation clearance from all combustable material is 0" ceiling clearance, 0" rear clearance, and 0" side clearance.

Before operating dryer, open basket door and remove blocking between front panel and basket. Read the instruction tags, owner's manual, warnings, etc.

IMPORTANT
Opening the clothes loading door deactivates the door switch to shut off the motors, fan, gas, steam, or electric element. To restart the dryer, close the door and press in the push to start button.

IMPORTANT
This dryer is designed for a capacity maximum load. Overloading it will result in long drying times and damp spots on some clothes.

IMPORTANT
Maximum operating efficiency is dependent upon proper air curculation. The lint screen must be kept cleaned daily to insure proper air circulation throughout the dryer.

IMPORTANT
Provide adequate clearance for air opening into the combustion chamber.

GENERAL INFORMATION

The dryer is so designed that when an operator opens the dryer door, the basket and exhaust fan stop. You can expect fast drying from a laundry dryer. Hot, dry air is properly and effectively moved through the basket and exhausted through a lint trap to the atmosphere. The dryer comes equipped with an inclined self-cleaning lint screen. In this system, lint accumulates on the underside of the screen until a blanket of lint will fall from the screen to the bottom of the dryer cabinet, and should be removed daily or as required, to prevent an over-accumulation.

IMPORTANT
Provide adequate clearance for air openings into the combustion chamber.

DRYER "COOL-DOWN" CYCLE

Permanent press, durable press and other modern day fabrics require the care that your laundry dryers now provide. At the end of the drying cycle, a timed "Cool-Down" control automatically takes over and continues the rotation of the fan and basket without heat until the garment load reaches a safe cool temperature. This function is performed at the end of each drying cycle and continues for two minutes.

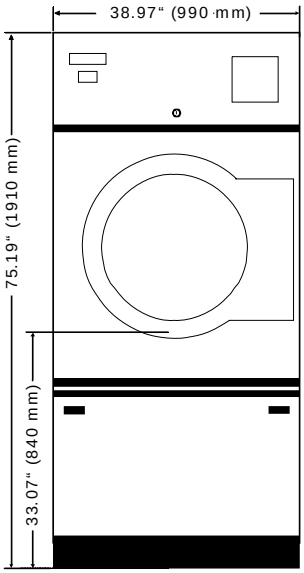
REPLACEMENT PARTS

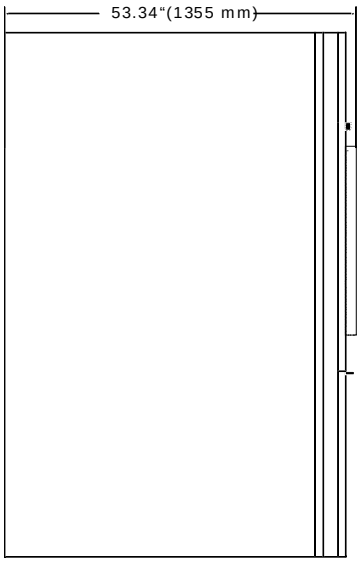
Replacement parts for this dryer are available from your distributor or by contracting the factory at the address or phone number printed on the cover page of this manual.

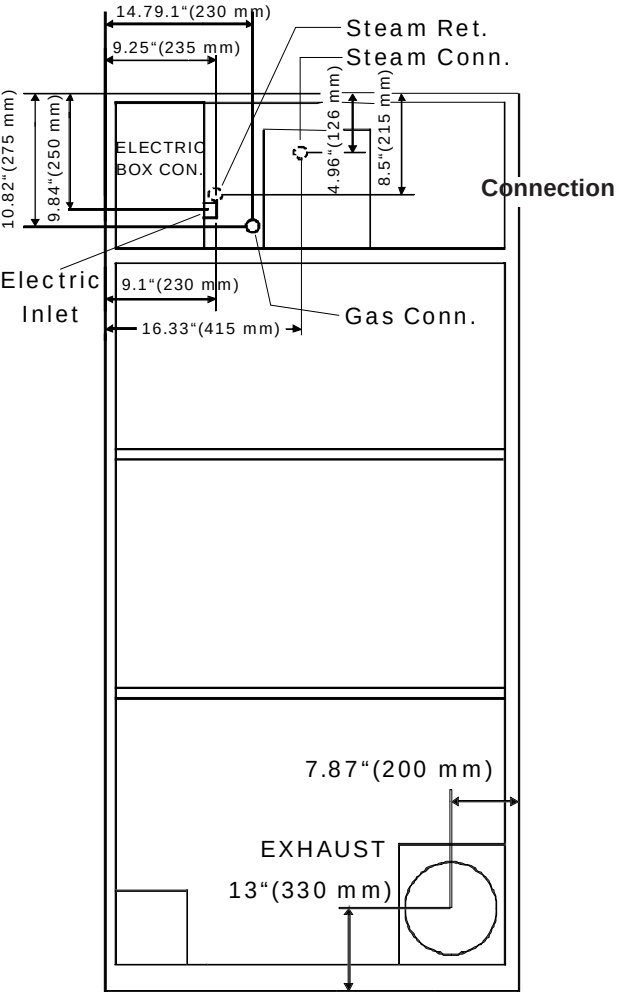
HD75 lb. Dryer Dimensions - Standard Gas

Specifications	U.S. Measure	Metric Measure	
Capacity (Dry Linen)	75 lbs.	34 kg	
Basket			
Diameter	37 inches	940 mm	
Depth	36 inches	914 mm	
Volume	22.4 ft^3	634 liters	
Cabinet			
Height	78-1/4 inches	1988 mm	
Width	39-1/4 inches	997 mm	
Depth	52 inches	1321 mm	
Door Opening			
Diameter	22-5/8 inches	575 mm	
Loading height	35-1/2 inches	902 mm	
Temperature			
Minimum	100° F	38° C	
Maximum	185° F	85° C	
Motor			
Non-reversing	3/4 HP	0.56 kW	
Reversing - Drum	1/2 HP	0.37 kW	
Fan	1/3 HP	0.25 kW	
Exhaust			
Flow Rate	1000 cfm	1700 m^3/h	
Diameter	8 inches	195-203 mm	
Electric Conn. - Electric Dryers		Non-Reversing	Reversing
208 V	60 - 3 PH	89 A	88 A
220/240 V	50/60 - 3 PH	72/78 A	72/78 A
380/415 V	50 - 3 PH	44/48 A	43/46 A
480 V	60 - 3 PH	38 A	39 A
Electric Conn. - Steam, Gas Dryers		Non-Reversing	Reversing
120/208-240 V	50/60 - 1 PH	10.06/5.4 A	
208/240 V	50/60 - 3 PH	4.2/4.1 A	5.5/5.4 A
480 V	60 - 3 PH	1.6 A	2.5 A
380/415 V	50 - 3 PH	1.7/1.8 A	4.3/4.4 A
Power			
Electric	30 kW	30kW	
Gas	185,000 Btu/h	46,600 kcal/h	
Steam	5.9 BHP	49,842 kcal/h	
Steam connection			
Inlet	3/4"	DN20	
Outlet	1/2"	DN15	
Gas Connection			
Gas Connection	3/4"	DN20	
Gas Pressure	6" - 12"	15-30 mb	
Shipping Dimensions			
(H xW x D)	87 X 42 X 57 inches	2210 X 1067 X 1448 mm	
Weight			
Net	798 lbs.	362 kg	
Gross	828 lbs.	376 kg	

HD75 Dryer Dimensions - Gas, Steam and Electric (Illustration)





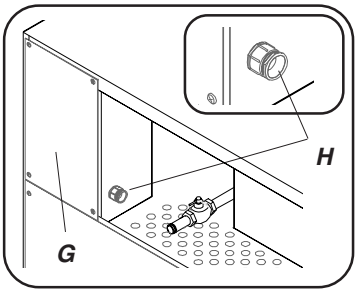


Electric connection

Dryers must be electrically grounded by a separate #14 or larger green wire from the **grounding terminal** within the Service Connection Box, to a cold water pipe. In all cases, the grounding method must comply with **local electrical code requirements**; or in the absence of local codes, with the ***National Electrical Code, ANSI/NFPA No. 70 or the Canadian Electrical Code, CA C22.1.***

See wiring diagram furnished with dryer. **Do not change wiring without consulting the factory, as you may void the factory warranty. DO NOT CONNECT THE DRYER TO ANY VOLTAGE OR CURRENT OTHER THAN THAT SPECIFIED ON THE DRYER RATING PLATE.** (Wiring diagram is located on rear wall of dryer.)

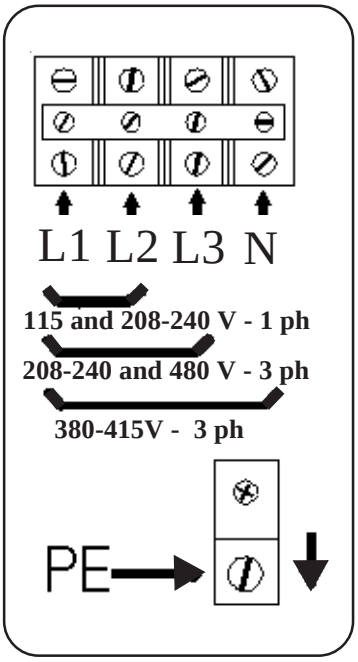
All panels must be in position before operation of dryer.



The connection needs to be made in the wiring box at the back. Remove the coverplate (G) in order to reach the connection clamps.

The connection cable needs to be brought in through the swivel (H) on the ***side of the wiring box.***

It is necessary to ***ground*** the dryer for your personal safety and to ensure a good operation.



115 and 208-240 V - 1 ph

The mains wires ***(Ll)*** and ***(L2)*** should be connected to the 2 left clamps and the ***yellow/green grounding wire (PE)*** should be connected to the grounding clamp.

208-240 and 480 V - 3 ph

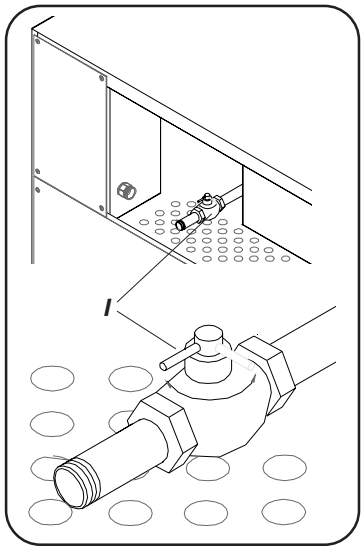
The ***3 mains wires (L1), (L2) and (L3)*** should be connected to the 3 left clamps and the ***yellow/green grounding wire (PE)*** should be connected to the grounding clamp.

380-415V - 3 ph

The ***3 mains wires (L1), (L2) and (L3)*** should be connected to the 3 left clamps, the ***blue neutral (N)*** should be connected to the right clamp and the ***yellow/green grounding wire (PE)*** should be connected to the grounding clamp.

«Attention. Lors des opérations d'entretien des commandes, ètiqueter tous les fils avant de les dèconnecter. Toute erreur de câblage peut être une source de danger et de panne»

Gas connection



The gas supply pipe should be connected ***to the gas tap (I), which is on the right next to the wiring box on the back.***

It is very important to have the connections done by a qualified technician, in order to make sure that the installation is effected in accordance with the prevailing standards and instructions.

The dryer should be connected to the type of gas, which is indicated on the serial plate.

The use ***of too small gas pipes*** can result in unsufficient gas supply, which can lead to a bad heating-up and a poor drying quality.

When the dryer is used in combination with a weighing platform, the gas supply pipe has to be made of flexible material to allow the weighing system to keep moving freely.

Test all clutches and connections for possible leaks by means of a soap solution, but ***never with a flame.***

It is important to work with the right gas pressure (see technical remarks) in order to obtain a good ignition, heating and consequently a good operation in general.

After the gas supply has been connected, the gas tap in the dryer should beturned on (clockwise).

GAS PIPING INSTALLATION

1. The installation must conform with local codes, or in the absence of local codes with the ***National Fuel Gas Code, ANSI Z223.1 or the CAN/CGA-B149, Installation Codes.***

2. Check Identification Nameplate for type of gas for dryer.

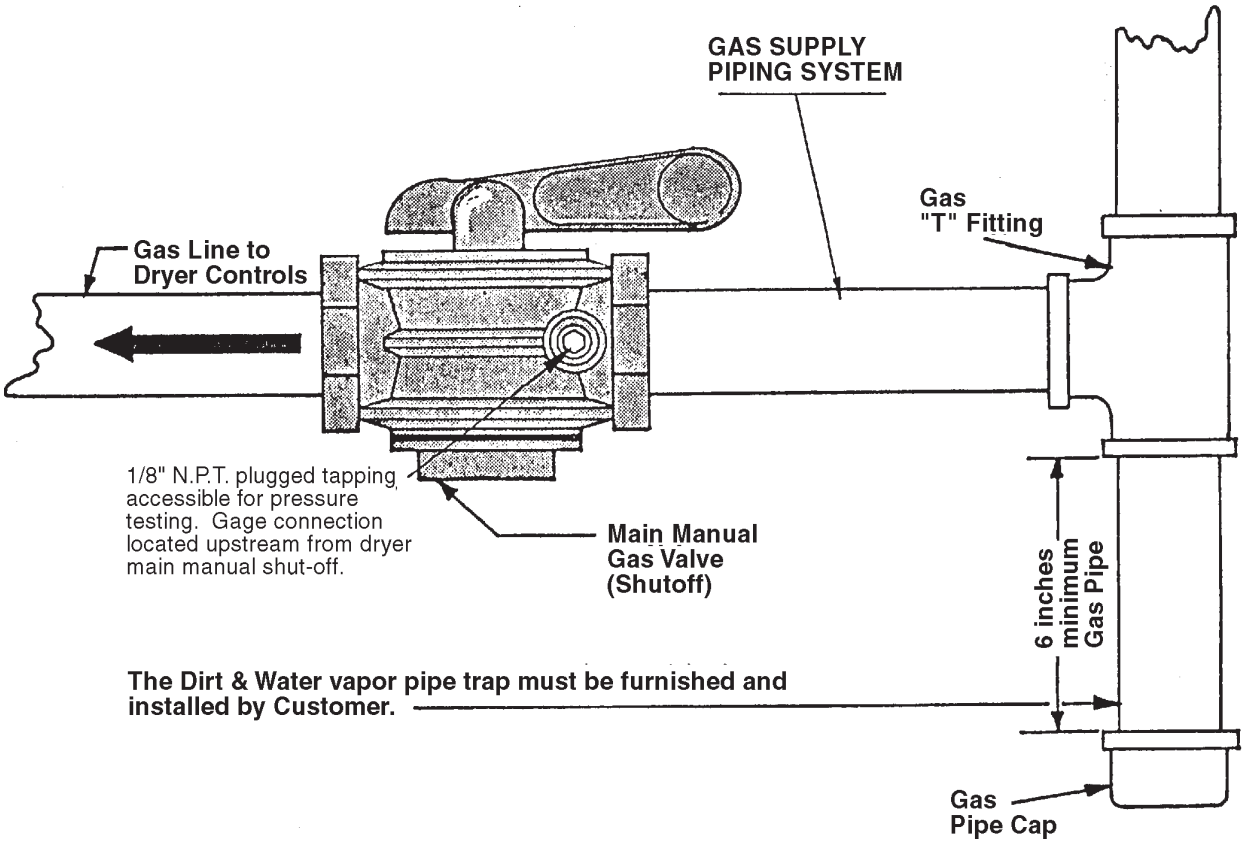
3. Check for altitude elevation of dryer.

4. Check with utilities company for proper gas pressure and gas supply line.

5. Natural Gas Only—Check the gas pressure inlet supply to dryer, 11 inches water column (27.4 mbar) maximum. Manifold Pressure—3.5 inches water column (8.8 mbar) pressure.

6. L.P. Gas Only—Check the gas pressure inlet supply to dryer, 13 inches water column (32.4 mbar) maximum. Manifold Pressure—11 inches water column (27.4 mbar) pressure.

CAUTION: Low gas pressure and intermittent gas will cause gas ignition problems and inadequate drying of laundry.



The dryer and it's individual shutoff valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 1/2 psig (.04 bar).

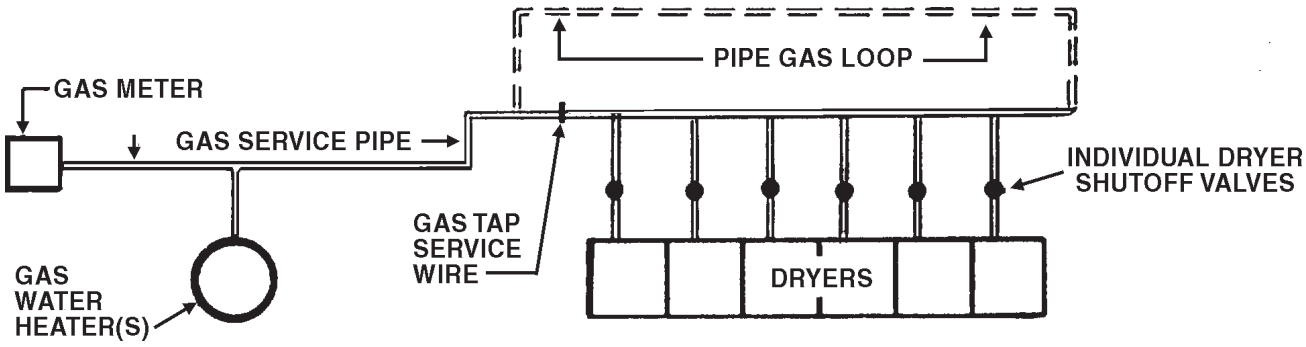
The dryer must be isolated from the gas supply piping system by closing it's individual manual shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 psig (.04 bar).

GAS SERVICE INSTALLATION INSTRUCTIONS

The size of the gas service pipe is dependant upon many variables, such as tees, lengths, etc. Specific pipe size should be obtained from the gas supplier. Refer to the "Gas Pipe Size" chart in this manual for general gas pipe size information.

CAUTION: Gas loop piping must be installed as illustrated to maintain equal gas pressure for all dryers connected to a single gas service

Other gas-using appliances should be connected upstream from the loop.



WARNING:
LIQUIFIED PETROLEUM GASES ONLY !

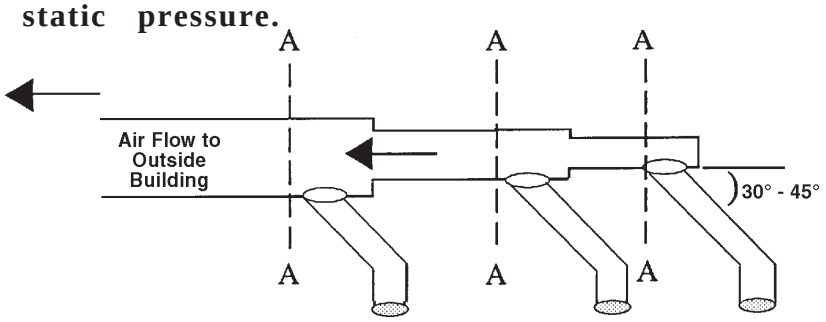
GAS PRESSURE REGULATOR FOR LIQUIFIED PETROLEUM GASES

A Gas Pressure Regulator for Liquified Petroleum Gases is not furnished on Gas Heated Clothes Dryers. This regulator is normally furnished by the installer. In accordance with American Gas Association (AGA) standards, a gas pressure regulator, when installed indoors, must be equipped with a vent limiter or a vent line must be installed from the gas pressure regulator vent to the outdoors.

Gas Pipe Size Chart

TOTAL BTU/HR (for LP Gas correct total BTU/HR below by multiplying by .6)	TOTAL KCAL	GAS PIPE SIZE FOR 1000 BTU (250 KCAL) NATURAL GAS AT 7" (17.5 MBAR) W.C. PRESSURE In figuring total length of pipe, make allowance for tees and elbows.					
	HOUR	(25 ft.) 7,62 m	(50 ft.) 15,24 m	(75 ft.) 22,86 m	(100 ft.) 30,48 m	(125 ft.) 38,1 m	(150 ft.) 45,72 m
60,000	15000	3/4	3/4	3/4	3/4	3/4	3/4
80,000	20000	3/4	3/4	3/4	1	1	1
100,000	25200	3/4	3/4	1	1	1	1
120,000	30200	3/4	1	1	1	1	1
140,000	35200	3/4	1	1	1	1	1 1/4
160,000	40300	3/4	1	1	1 1/4	1 1/4	1 1/4
180,000	45300	1	1	1	1 1/4	1 1/4	1 1/4
200,000	50400	1	1	1 1/4	1 1/4	1 1/4	1 1/2
300,000	75600	1	1 1/4	1 1/4	1 1/2	1 1/2	1 1/2
400,000	100800	1 1/4	1 1/4	1 1/2	1 1/2	1 1/2	2
500,000	126000	1 1/4	1 1/2	1 1/2	2	2	2
600,000	151200	1 1/2	1 1/2	2	2	2	2
700,000	176400	1 1/2	2	2	2	2	2 1/2
800,000	202000	1 1/2	2	2	2	2 1/2	2 1/2
900,000	230000	2	2	2	2 1/2	2 1/2	2 1/2
1,000,000	250000	2	2	2	2 1/2	2 1/2	2 1/2
1,100,000	270000	2	2	2 1/2	2 1/2	2 1/2	2 1/2
1,200,000	300000	2	2	2 1/2	2 1/2	2 1/2	2 1/2
1,300,000	330000	2	2 1/2	2 1/2	2 1/2	2 1/2	3
1,400,000	350000	2	2 1/2	2 1/2	2 1/2	3	3
1,500,000	380000	2	2 1/2	2 1/2	2 1/2	3	3
1,600,000	400000	2	2 1/2	2 1/2	3	3	3
1,700,000	430000	2	2 1/2	2 1/2	3	3	3
1,800,000	450000	2 1/2	2 1/2	3	3	3	3
1,900,000	480000	2 1/2	2 1/2	3	3	3	3
2,000,000	504000	2 1/2	2 1/2	3	3	3	3 1/2
2,200,000	550000	2 1/2	3	3	3	3 1/2	3 1/2
2,400,000	605000	2 1/2	3	3	3	3 1/2	3 1/2
2,600,000	650000	2 1/2	3	3	3 1/2	3 1/2	3 1/2
2,800,000	705000	2 1/2	3	3	3 1/2	3 1/2	3 1/2
3,000,000	750000	2 1/2	3	3 1/2	3 1/2	3 1/2	4
3,200,000	806000	3	3	3 1/2	3 1/2	3 1/2	4
3,400,000	850000	3	3 1/2	3 1/2	3 1/2	4	4
3,600,000	907000	3	3 1/2	3 1/2	3 1/2	4	4
3,800,000	960000	3	3 1/2	3 1/2	4	4	4
4,000,000	1000000	3	3 1/2	3 1/2	4	4	4

For Exhaust Duct less than 14 feet (5 m) and 2 elbows equivalent and less than 0.3 inches (8 mm) static pressure.

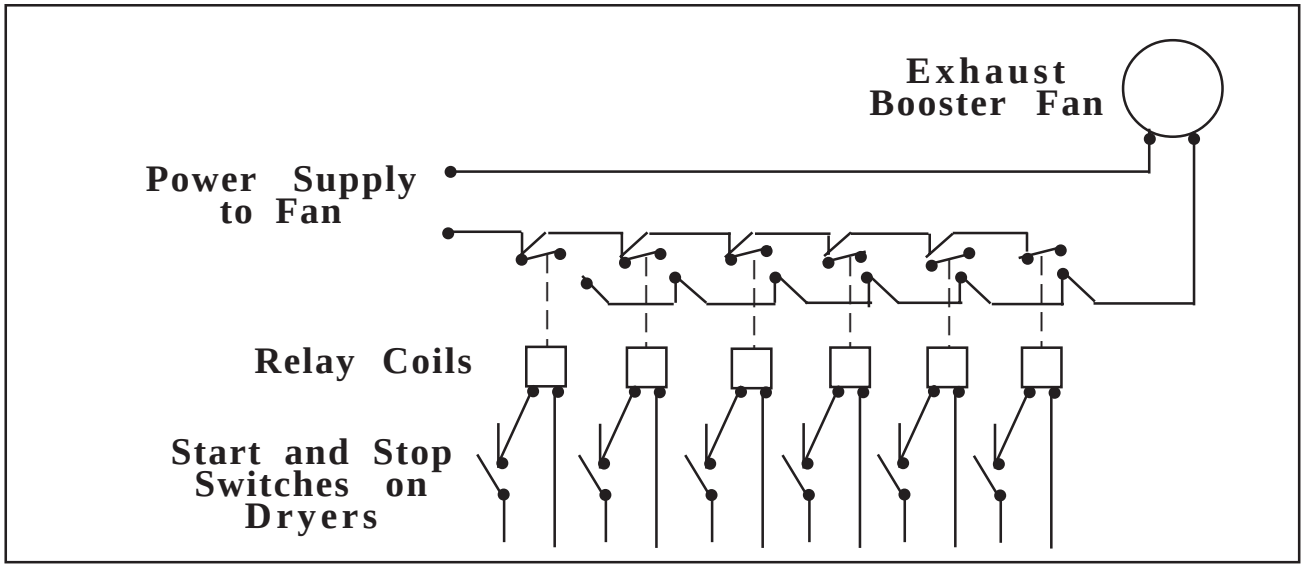


DRYER EXHAUSTS

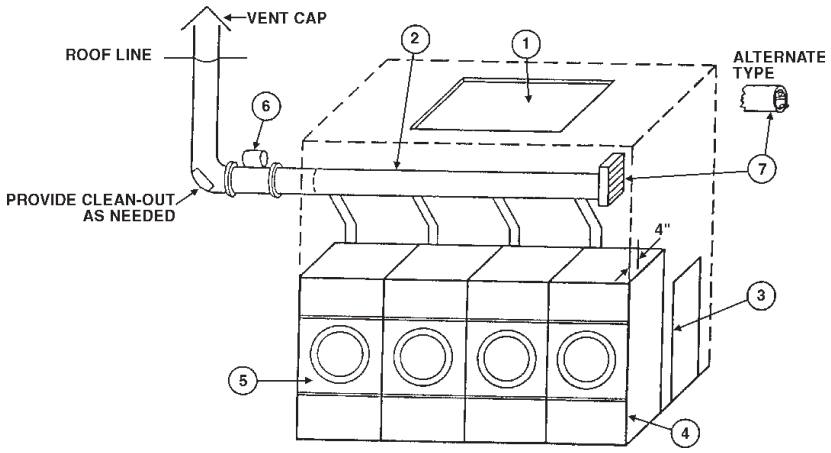
Area of section "A-A" must be equal to the sum of dryer exhaust pipes entering multiple exhaust pipe. (*See chart below.*)

HD75

No. of Dryers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Duct Diameter (in inches)	8	12	14	16	18	20	22	23	24	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
(in CM)	20	30	25	41	46	51	56	58	61	66	68	71	73	76	78	81	84	86	89	91	94	97	99	100



Dryer Installation with Multiple Exhaust



DRYER INSTALLATION WITH MULTIPLE EXHAUST

For Exhaust Duct more than 14 feet (5 m) and 2 elbows equivalent and more than 0.3 inches (8 mm) static pressure.
(See illustration on page 21.)

1. Make-up air from outside building may enter enclosure from top or side walls. ***(See Dryer Make-Up Air Requirements Chart)***
2. Use constant diameter duct with area equal to the sum of dryer duct areas.
   EXAMPLE: Six 8 inch (204 mm) diameter duct = one 19.6 inch (498 mm) diameter duct in area. Use 20 inch (508 mm) diameter duct or diameter to match tube-axial fan.
3. Enclosure (plenum) with service door. This separates the dryer air from room comfort air. If dryers use room air instead of outside air, the heat loss can be another 25 Btu/hr (6.3 kcal/hr) for each cubic foot per minute (cfm) used.
4. Zero inches clearance to combustible material allowed on sides and at points within 4 inches (102 mm) of front on top.
5. Heat loss into laundry room from dryer fronts *only* is about 60 Btu/hr per square foot (15 kcal/hr per 0.1m²).
6. Flange mounted, belt driven tube-axial fan. **Fan must run when one or more dryers are running.** *See suggested Automatic Electrical Control Wiring Diagram on previous page.* Must meet local electrical codes. Fan air flow (cfm) (m³/min.) is equal to sum of dryer air flows, but static pressure (SP) is dependent on length of pipe and number of elbows.
7. **Barometric Bypass Damper**—Adjust to *closed flutter position* with all dryers and exhaust fan running. **Must be located within enclosure.**

CAUTION: *Never* install hot water heaters or other gas appliances in the same room as dryers. *Never* install cooling exhaust fans in the same room as dryers.

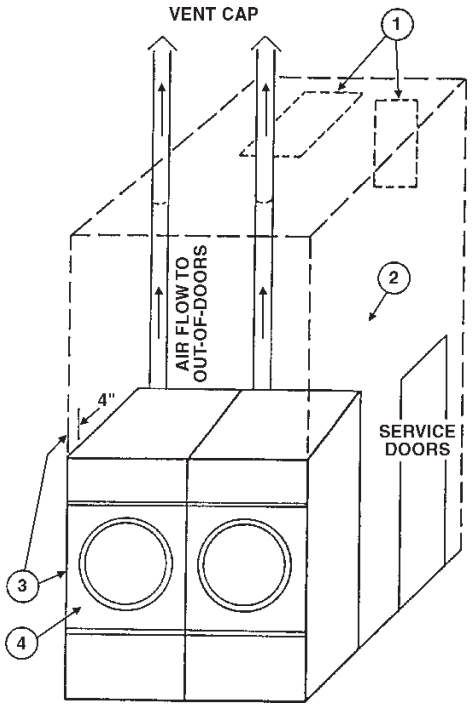
CAUTION: *Never* exhaust dryers with other types of equipment.

Suggested Minimum Dryer Make-up Air Requirements

Dryer Model	Dryer Pocket Capacity		Maximum Air Flow Rate per Pocket		Duct Size For Service Connection		Required Make-up Air Area per Pocket	
	lb	kg	cfm	m3/h	inch	mm	sq. inch	cm2
C 30	30	13.6	700	1190	8	203	135	871
C 30 E/S	30	13.6	400	680	6	153	77	497
C 30 ST	30	13.6	450	765	6	153	87	561
C 50	50	22.7	800	1360	8	203	154	994
C 50 E/S	50	22.7	450	765	6	153	87	561
C 75	75	34	1000	1700	8	203	192	1239
C 75 E/S	75	34	536	911	6	153	103	665
C 75 ST	75	34	1000	1700	12	305	192	1239
HD80	80	36.3	1465	2490	10	254	282	1819
C 110	110	50	2200	3740	12	305	422	2723
C 110 E/S	110	50	850	1445	8	203	163	1052
C 125	125	56.7	2000	3400	12	305	384	2477
C 150	150	68	2250	3825	12	305	432	2787
HD175	175	79.4	2780	4726	12	305	534	3445
HD190	190	86.2	3000	5100	12	305	576	3716
HD20	20	9.1	450	765	6	153	87	561
HD30	30	13.6	625	1063	8	203	120	774
HD50	50	22.7	700	1190	8	203	135	871
HD75	75	34	1000	1700	8	203	192	1239

Notes:

1) The Model C 30 ST has 2 pockets per dryer, each pocket has the above listed characteristics; each pocket is exhausted separately with a 6" (153mm) duct.
2) The Model C 75 ST has 2 pockets per dryer, each pocket has the above listed characteristics; both pockets have one 8" (203mm) exhaust manifolded into one 12" (305mm) exhaust duct for exhaust connection.
3) For the C 30 ST and the C 75 ST Models, the Required Make-up Air Area shown in the table should be doubled since it is shown per pocket,only.
4) E/S indicates an Energy Saving Model.



DRYER INSTALLATION WITH SEPARATE EXHAUST (PREFERRED)

For ductwork less than 14 feet (5 m) and 2 elbows equivalent and less than 0.3 inches (8 mm) static pressure:

NEVER exhaust the dryer into a chimney.

NEVER install wire mesh screen over the exhaust or make-up air area.

NEVER exhaust into a wall, ceiling, or concealed space.

1. Make-Up Air opening from outside the building may enter the enclosure from the top or side walls. ***(See Dryer Make-Up Air Chart)***
2. Enclosure (plenum) with service door. This separates the dryer air from the room comfort air. If dryers use room air instead of outside air, additional heat loss can be another 25 Btu/hr (6.3 kcal/hr) for each cubic foot per minute (cfm) (.03m³/min.) used.
3. Zero inches (mm) clearance to combustible material allowed on sides and at points within 4 inches (102 mm) of front on top.
4. Heat loss into laundry room from dryer front panels is about 60 btu/hr per square foot (15 kcal/hr per 0.1m²).

DRYER AIR FLOW INSTALLATION

Nothing is more important than air flow for the proper operation of a clothes dryer. A dryer is a pump which draws make-up air from the out-of-doors, through the heater, through the clothes and then forces the air through the exhaust duct back to the out-of-doors. Just as in a fluid water pump, there must be a fluid air flow to the inlet of the dryer, if there is to be the proper fluid air flow out of the exhaust duct. In summary, there must be the proper size out-of-doors inlet air opening (4-6 times the combined areas of the air outlet) and an exhaust duct, size and length of which allows flow through the dryer with no more than 0.3 inches water column (.8 mbar) static pressure in the exhaust duct.

In some instances, special fans are required to supply make-up air, and/or boost exhaust fans are required for both regular and energy saving models.

EXHAUSTING DUCT

FOR BEST DRYING:

1. Exhaust duct maximum length 14 feet (5 m) of straight duct and maximum of two 90° bends.
2. Use 45° and 30° elbows wherever possible.
3. **Exhaust each dryer separately.**
4. Use 2 feet (0.6 m) of straight duct on dryer before installing an elbow on Energy-Saver models only.
5. **Do not** install wire mesh or other restrictions in the exhaust duct.
6. Use clean-outs in the exhaust duct and clean periodically when needed.
7. **Never** exceed 0.3 inches water column (.8 mbar) static pressure in the exhaust duct.
8. Inside surface of the duct **must be smooth**.
9. Recommend pop rivets for duct assembly.

MAKE-UP AIR

FOR BEST DRYING:

1. Provide opening to the out-of-doors in accordance with the following:
   For each dryer—
   6 inches (2 m) diameter exhaust requires a 1 square feet (0.1 m^2) opening for make-up air.
   8 inches (3 m) diameter exhaust requires a 2 square feet (0.2 m^2)opening for make-up air.
   12 inches (4 m) diameter exhaust requires a 4 square feet (0.4 m^2)opening for make-up air.
2. Use barometric shutters in the inlet air opening to control air when dryers are not running.

OTHER RECOMMENDATIONS

Other Recommendations

To assure compliance, consult local building code requirements.

TROUBLESHOOTING

Troubleshooting

Hot dryer surfaces, scorched clothes, slow drying, lint accumulations, or air switch malfunction are indicators of exhaust duct and/or make-up air problems.

1. **Be sure** your dryer is installed properly in accordance with the recommended instructions.
2. **CAUTION**
   Be safe—**shut main electrical power supply and gas supply off externally before attempting service.**
3. **CAUTION**
   Never use drycleaning solvents: gasoline, kerosene, or other flammable liquids **in the dryer**. ***Fire and explosion will occur.***
   Never put fabrics treated with these liquids into the dryer.
   Never use these liquids near the dryer.
   Always keep the lint screen clean.
   Never use heat to dry items that contain plastic, foam or sponge rubber, or rags coated with oils, waxes or paints. The **heat may** damage the material or **create a fire hazard**. **Rubber easily oxidizes, causing excessive heat and possible fire.**
   Never dry the above items in the dryer.
4. **Never let children play near or operate the dryer. Serious injury will occur if a child should crawl inside and the dryer is turned on.**
5. **Never** use dryer door opening and top as a step stool.
6. **Read** and follow manufacturer's instructions on packages of laundry and cleaning aids. Heed any **warnings** or **precautions**.
7. **Never** tumble fiberglass materials in the dryer unless the labels say they are machine dryable. Glass fibers break and can remain in the dryer and could cause skin irritation if they become mixed into other fabrics.
8. **Reference**
   Lighting and shut-down instructions and wiring diagrams are located on the rear wall of the dryer cabinet.
9. **The dryer must not be installed or stored in an area where it will be exposed to water and/or weather.**

1. Install dryer so that you can use short, straight venting. Turned elbows and long vent tubing tend to increase drying time. Longer drying time means the use of more energy and higher operating costs.
2. Operate dryer using full-size loads. Very large loads use extra energy. Very small loads waste energy.
3. Dry light-weight fabrics separately from heavy fabrics. You will use less energy and get more even drying results by drying fabrics of similar weight together.
4. Clean the lint screen area daily. A clean lint screen helps give faster, more economical drying.
5. **Do not** open the dryer door while drying. You let warm air escape from the dryer into the room.
6. Unload the dryer as soon as it stops. This saves having to re-start your dryer to remove wrinkles.

DIRECT SPARK IGNITION OPERATION

NOTE: All HD dryers manufactured by are equipped with the DSI (Direct Spark Ignition) modules. These are designed to increase dryer efficiency and to reduce dryer operating costs. The main burner is directly ignited from a spark electrode. A burning flame provides an electrical path for a small amount of sensing current to allow gas valve operation. If the main burner flame extinguishes for amy reason (aside from the thermostatic control) sensing current will shut down the gas valve and the spark ignition circuit.

1. Once flame is established, the spark shuts off, and the main burner flame is then electronically monitored by means of a sensing spark probe which is located over the burner. The gas valve remains energized (open).

2. If no flame is detected within the first 11 seconds the DSI will go into a safety “lock-out”. The gas valve is energized.

3. If recovery from a safety lockout requires one of the following:

   A. Opening the main door thus interrupting power to the DSI module and allowing dryer diagnostic trouble shooting.

   B. Disconnecting the entire dryer from a power source using a circuit breaker of a switch.

4. By closing the main door the ignition circuit will be restored for another trial of the ignition circuit.

5. Once the thermostatic control has been satisfied by reaching a pre-set temperature or the drying timer has been timed out, the ignition circuit will be de-energized thus extinguishing the flames.

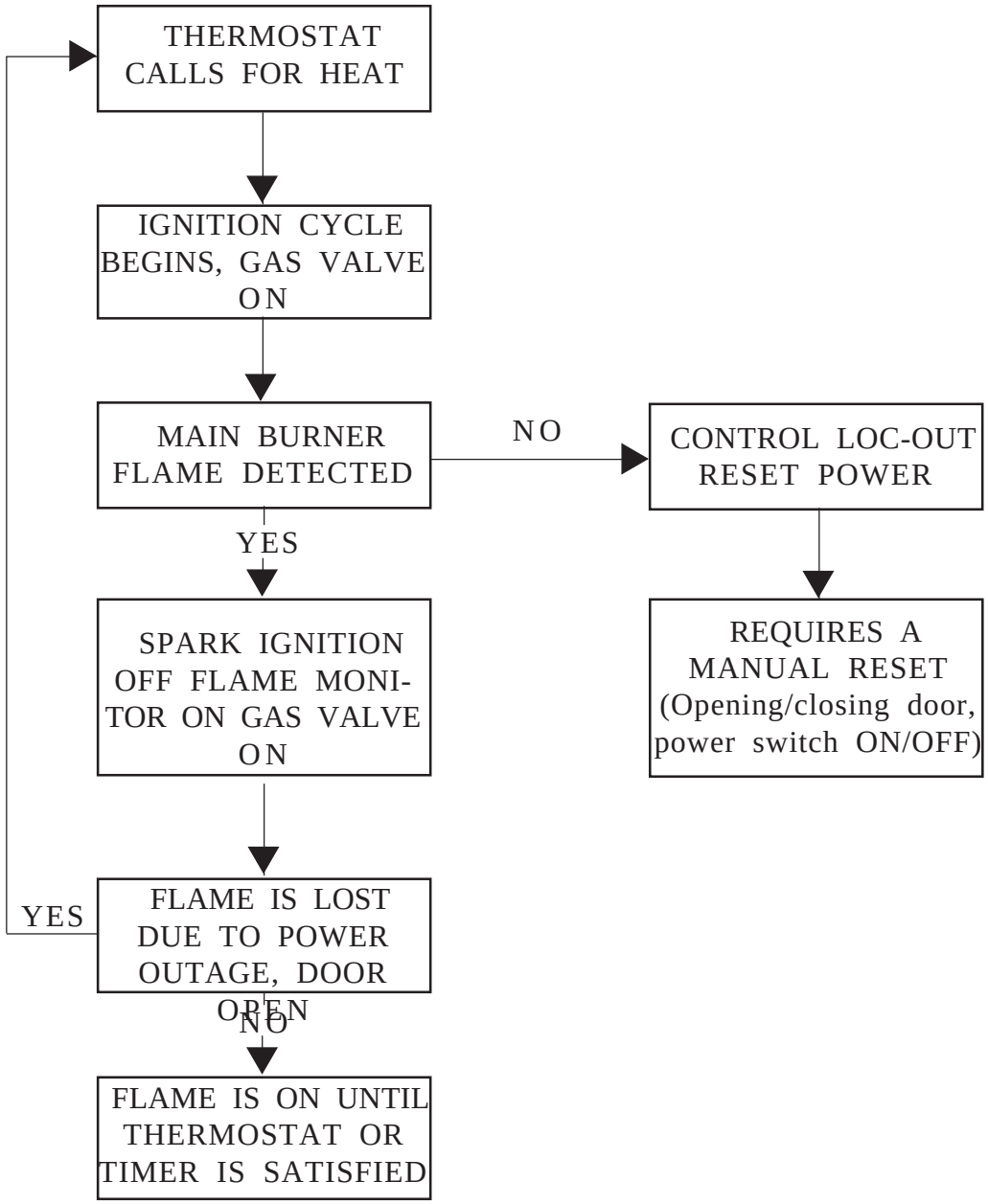
6. The dryer will continue to run in a cool-down mode without heat. This process will cool the load to the touch and help to eliminate wrinkling.

7. The cool - down time is pre-set on some models and manually set on other dryer models. The cool-down cycle prevents fabric wrinkles by allowing clothes to reach room ambient temperature while still in a continuous levitation state until clothes are ready to be folded or pressed.

DIRECT SPARK
IGNITION OPERATION
FLOW CHART

The DSI module is powered by a 24 volt AC supplid by a stem-down transformer in series with eight safety interlocks:

A. Timer Switching Device (1)
B. Main Door and Lint Door Switches (2)
C. Sail Switch (1)
D. Under Basket and Burner Housing Thermal Safety Switches (2)
E. Variable Thermostat (1)
F. Push to Start Switch (1)



GENERAL MAINTENANCE

1. **Clean lint trap daily.** Remove lint before or after each day of operation. A clean lint trap will increase the efficiency of the dryer and the moisture-laden air will be exhausted outside more quickly.

2. **Keep basket and sweep sheets clean.** Clean as often as needed. The basket and sweep sheets are accessible by removing the front panel of the dryer.

3. **Gas burners, steam coils, electric coils.** Check and clean often.

4. **Pulleys and belts.** Keep clean, as oil and dirt will shorten the life of a belt. Check periodically for alignment. Pulley shafts must be parallel and the grooves must be aligned. Check belt tension periodically. Adjust tension by movement of Idler Bracket. Lubricate Idler Pulley once every two months, using six grams of high temperature grease. **Do not over-grease.**

5. **Electric motor.** Keep motor clean and dry. Motors are packed with sufficient grease for 10 years normal service. After that, bearings and housing should be cleaned and repacked one-third full with Chevron Grease No. SR1-2. See label on motor for further information.

   If motor overheats, check voltage and wiring. Low voltage, inadequate wiring and loose connections are the main cause of motor failures.

6. **Adjustable leveling bolts.** One at each corner permits accurate alignment of dryer.
   To adjust: Block one corner of dryer up off the floor, loosen hex nut. With wrench, turn bolt clockwise to raise dryer, opposite to lower. Rear bolts are outside of dryer and front bolts are inside lint trap compartment.

GENERAL MAINTENANCE (continued)

7. **Periodically clean** and examine exhaust system.

8. **Keep dryer area clean** and free of gasoline, combustible materials and other flammable liquids or vapors.

9. **Do not obstruct the flow** of combustion (make-up) air and ventilating air.

10. **Check gas pressure** periodically.

OPERATING INSTRUCTIONS - DOUBLE TIMER MODELS

1. After loading the dryer with water washed clothes, close the loading door.

2. Turn the 60 minute drying (heat) timer to the desired time.

3. Turn the 60 minute cooling (air) to the desired time.

4. Select the temperature desired: Low, Medium, or High.
   HIGH HEAT
   175° F (80° C) exhaust temperature, heavy fabrics and hard to dry, such as cottons, towels, denim, etc..
   ***PERMANENT PRESS* (medium)**
   155° F (69° C) exhaust temperature, synthetic blends, including a mixed wash load.
   LOW HEAT
   135° F (58°) exhaust temperature, delicate, sheer fabrics.

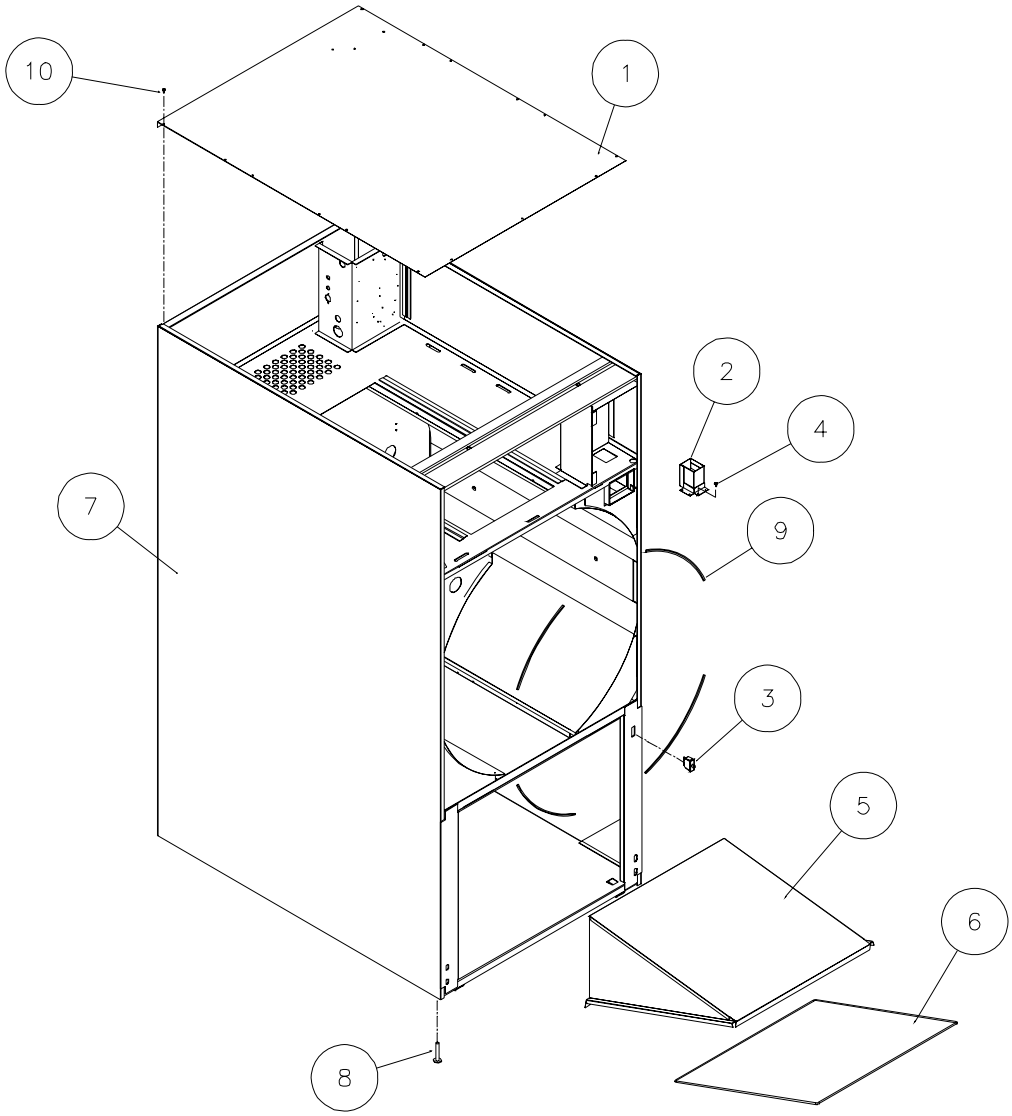
5. Press the “push to start” button to start the drying cycle. The heat or drying light will stay on until the drying cycle is completed

6. At the end of the drying cycle, the cool down cycle will automatically count down until all time runs out. The cool down light will stay on until the end of the cycle.

7. Drying cycle will not start unless a few minutes of the cool-down cycle are set on the cool-down timer.

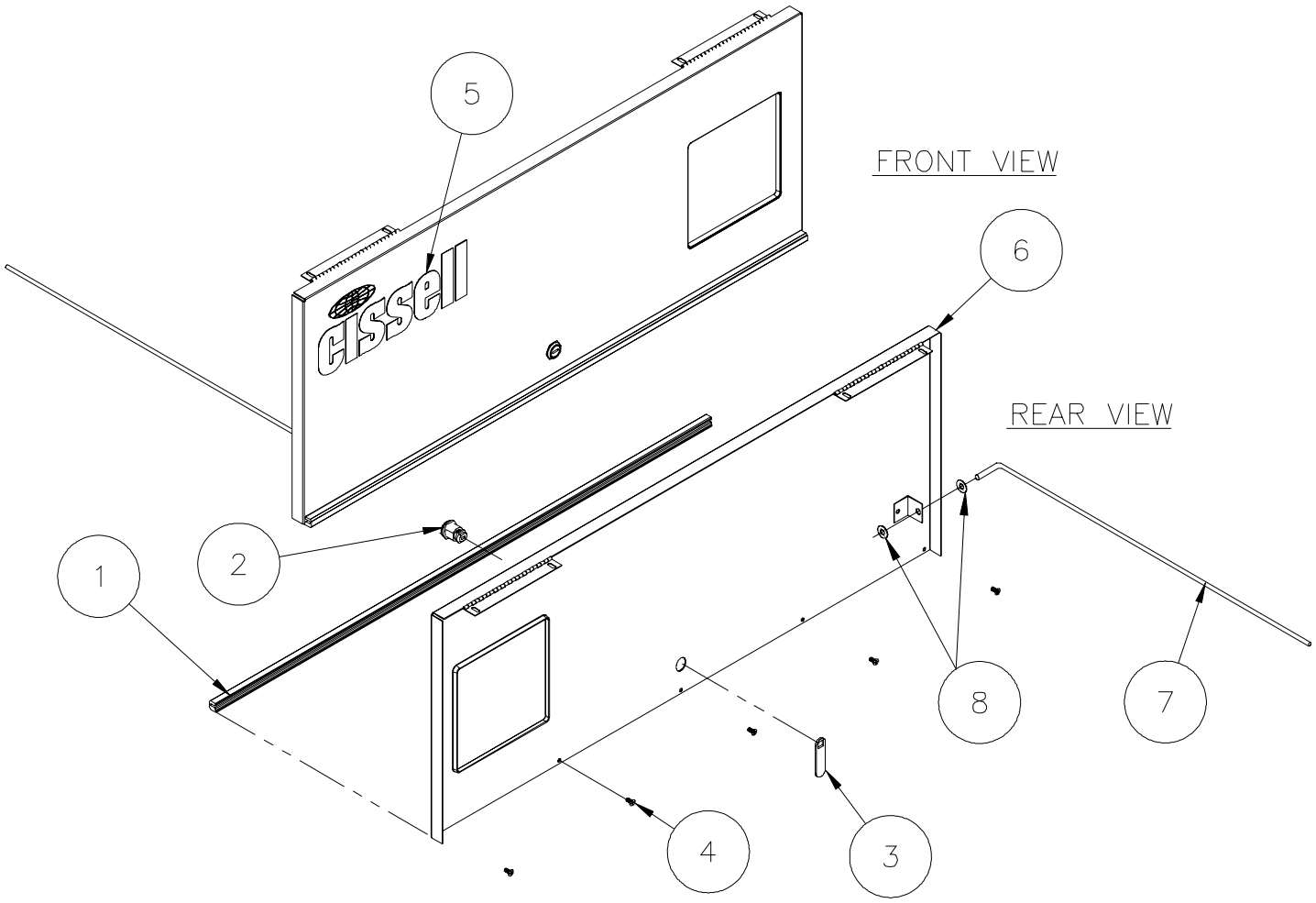
8. To shut the dryer off at any time during the cycles by opening the door.

FRONT VIEW



Ref. No.	Part No.	Description
1	TU14849	Top
2	CSA-01435-0	Coin chute welded assembly
3	EA-11621-0	Switch door
4	SC404	Pop rivet
5	CA-13085-0	Lint trap welded assembly
6	CA-12346-0	Lint screen
	CA-13243-0	Lint screen frame
7	TU14819	Jacket (white)
8	TU3211	Leveling bolt
9	TU5876	Gasket set
10	TU7733	Screw self drilling 8-18 X 1/2"

CONTROL DOOR ASSEMBLY

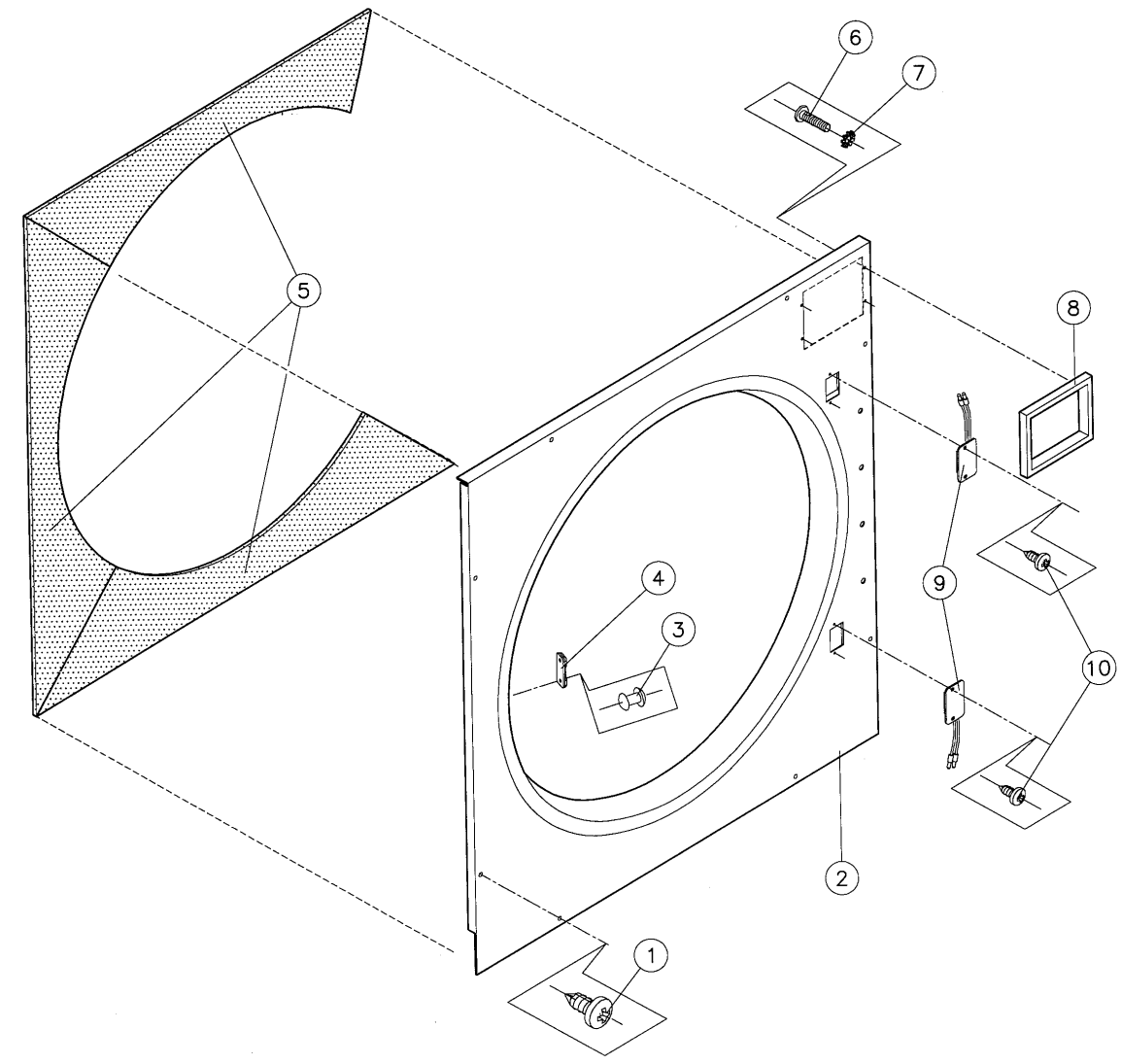


TU14733 Complete control door assy.

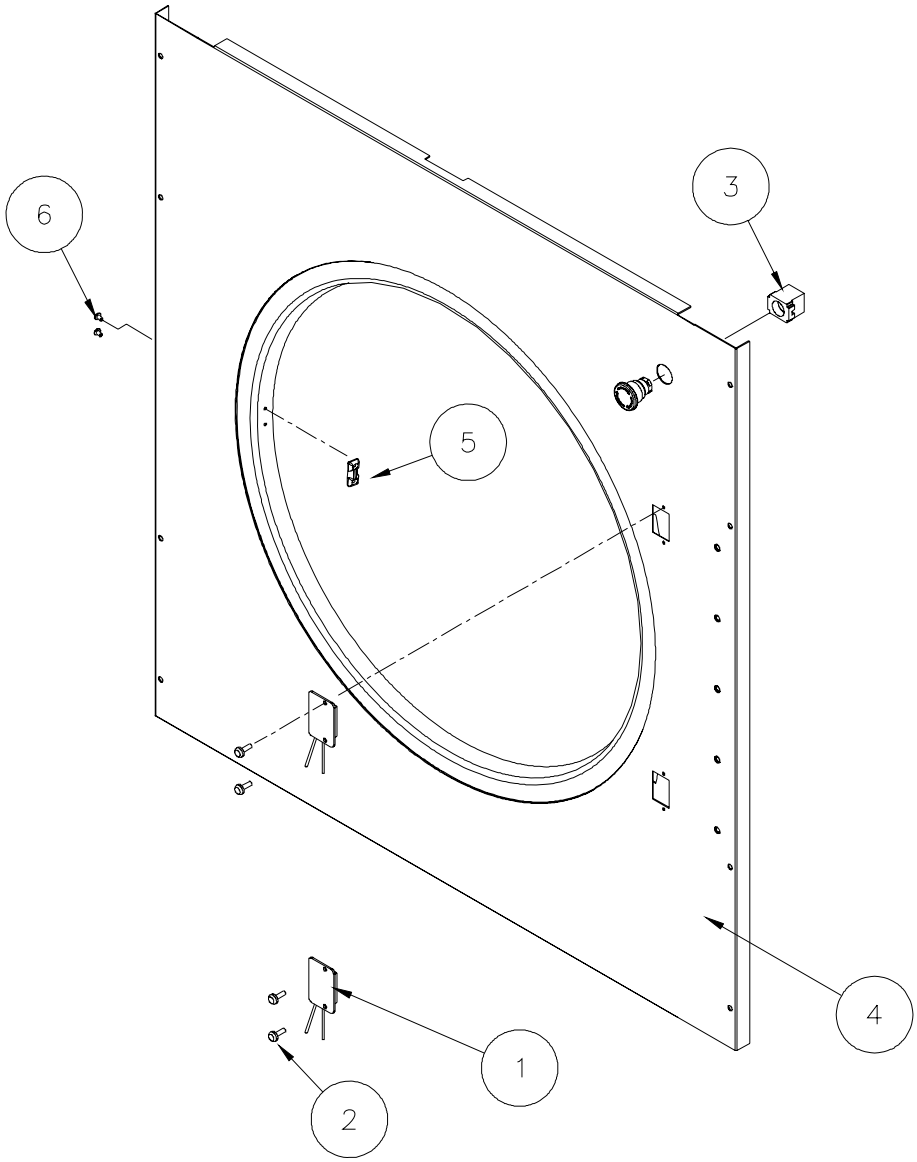
Note: Door rod assy. is not part of above complete assy.

Ref. No.	Part No.	Description
1	CA-00858-0	Trim - control door
2	LA-00121-0	Lock - control door
3	LA-11359-0	Lock - cam
4	SB-00951-0	Screw - phillips #8 x 7/16 flat hd.
5	TU14957	Logo "CISSELL"
6	TU14732	Panel welded assembly
7	CA-10085-0	Support arm
8	SB-00971-0	Tinnerman push-on fastener

FRONT PANEL ASSEMBLY



Ref. No.	Part No.	Description
1	SB-00915-0	Screw self drilling #10-16 x 5/8"
2	CSA-01568WH	Front panel, welded assembly. - Coin
3	TU3213	Pop Rivet PVD door locker
4	TU2876	Latch strap
5	CA-00676	Insulation
6	SB-00924-0	Screw #4-40 x 3/8" taptite
7	SB-00938-0	Washer #4 external tooth
8	CA-00699-0	Bezel - Coin box
9	ESA-00862-0	Reed switch assembly.
10	SB-00975-0	Screw #6-32 x 1/4" phillips

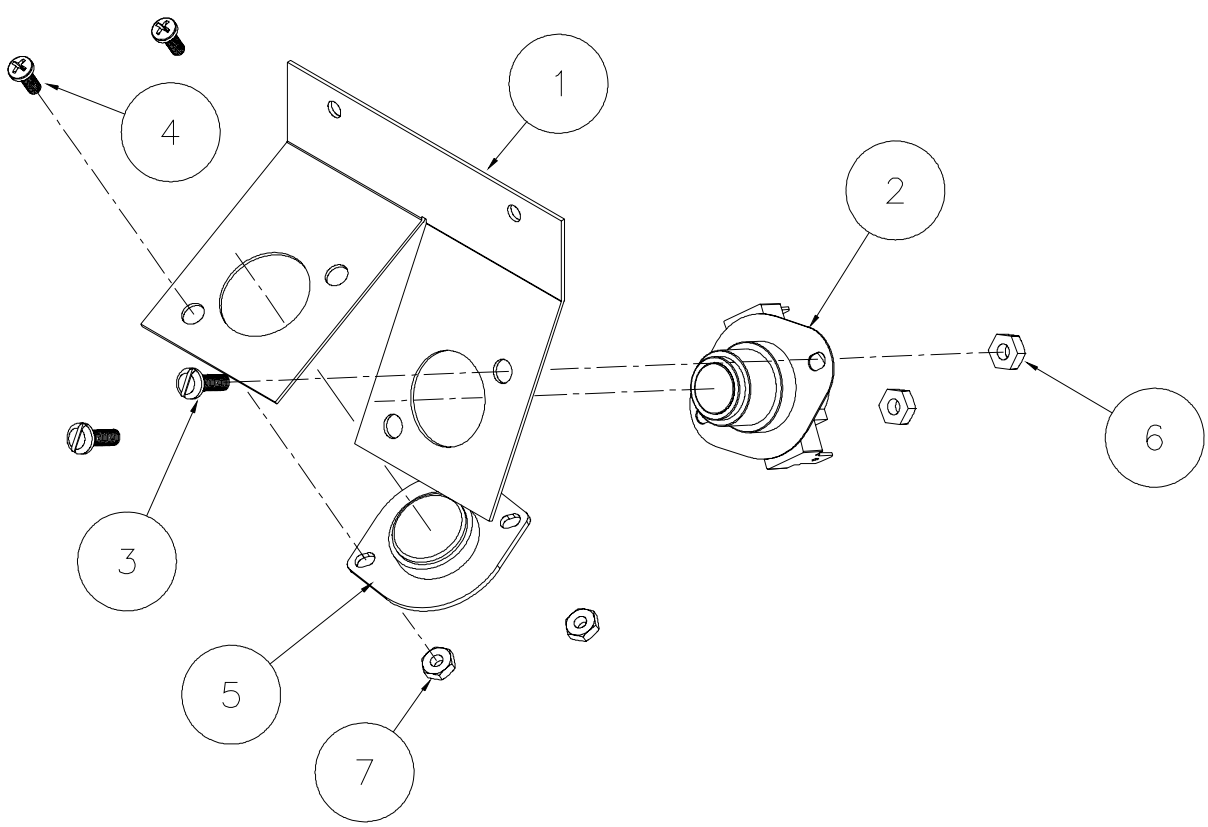


Ref. No.	Part No.	Description
	CSA-01575WH - Front panel assembly complete	
1	ESA-00862-0	Reed switch
2	SB-00915-0 #10-16 Screw	
3	TU14435	Emergency stop
4	CSA-01568WH	Front panel W/A - OPL
5	TU2876	Door catch
6	TU3113	Pop rivet

DOOR ASSEMBLY

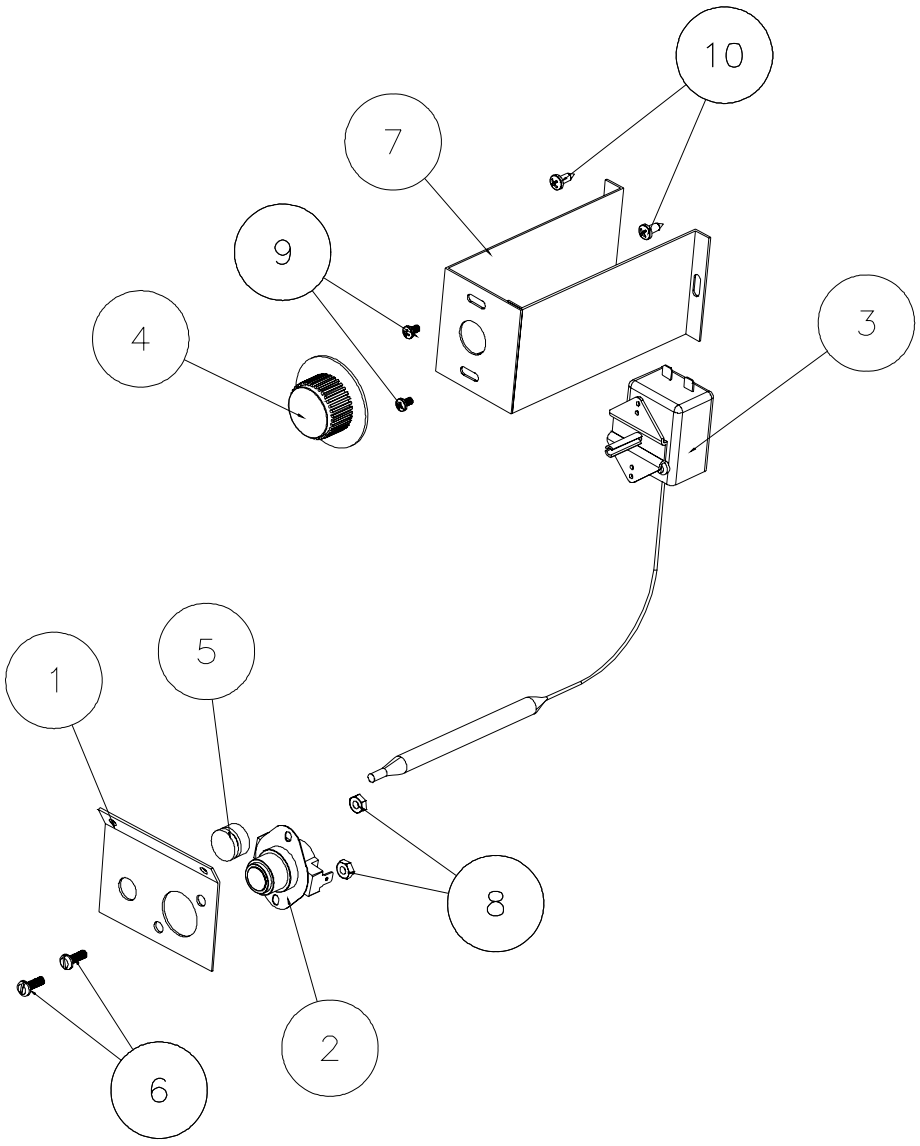
Ref. No.	Part No.	Description
MSD-00864WH		Complete door assy (consists of items 1 thru 9 only)
1	MD-00337-0	Magnet-read switch (2 each)
2	MD-00338-0	Gasket-door rim
3	MD-00348-0	Hinge spacer
4	MD-00354-0	Gasket-door glass-straight
5	MD-00362-0	Door glass-clear
6	MSD-00858-WH	Basket door W/A
7	SB-00852-0	Washer 1/4" external star lock (5 each)
8	SB-00921-0	Screw 1/4"-20 round head (5 each)
9	TU2874	Basket door handle
10	TU3215	Screw #10-32 x 3/8"
11	TU3163	Catch pin (2 each)
12	TU4840	Crown nut

THERMOSTAT ASSEMBLY - ESA-00961-0



Ref. No.	Part No.	Description
1	CA-13172	MTG. BRACKET
2	EA-00594	SWITCH
3	SB-00828	#8-32x1/2 SCREW
4	SB-00952	#6-32x3/8 SCREW
5	TU11991	THERMISTOR
6	TU3266	#8-32 HEX NUT
7	TU3400	#6-32 HEX NUT

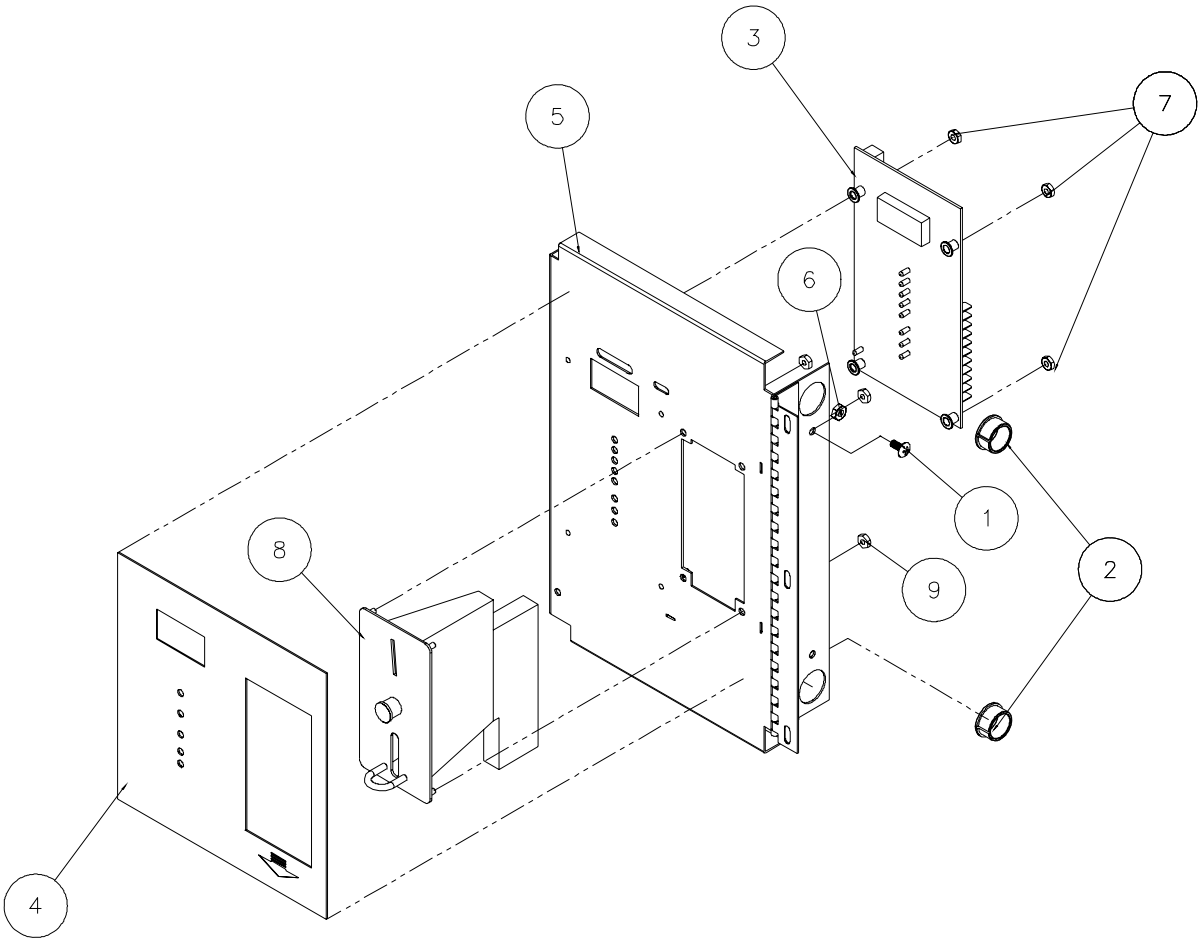
THERMOSTAT ASSEMBLY



NOTE: Items 3,4,7,9&10 mounted in front wire box. Items 1,2,5,6,&8 are mounted under the basket

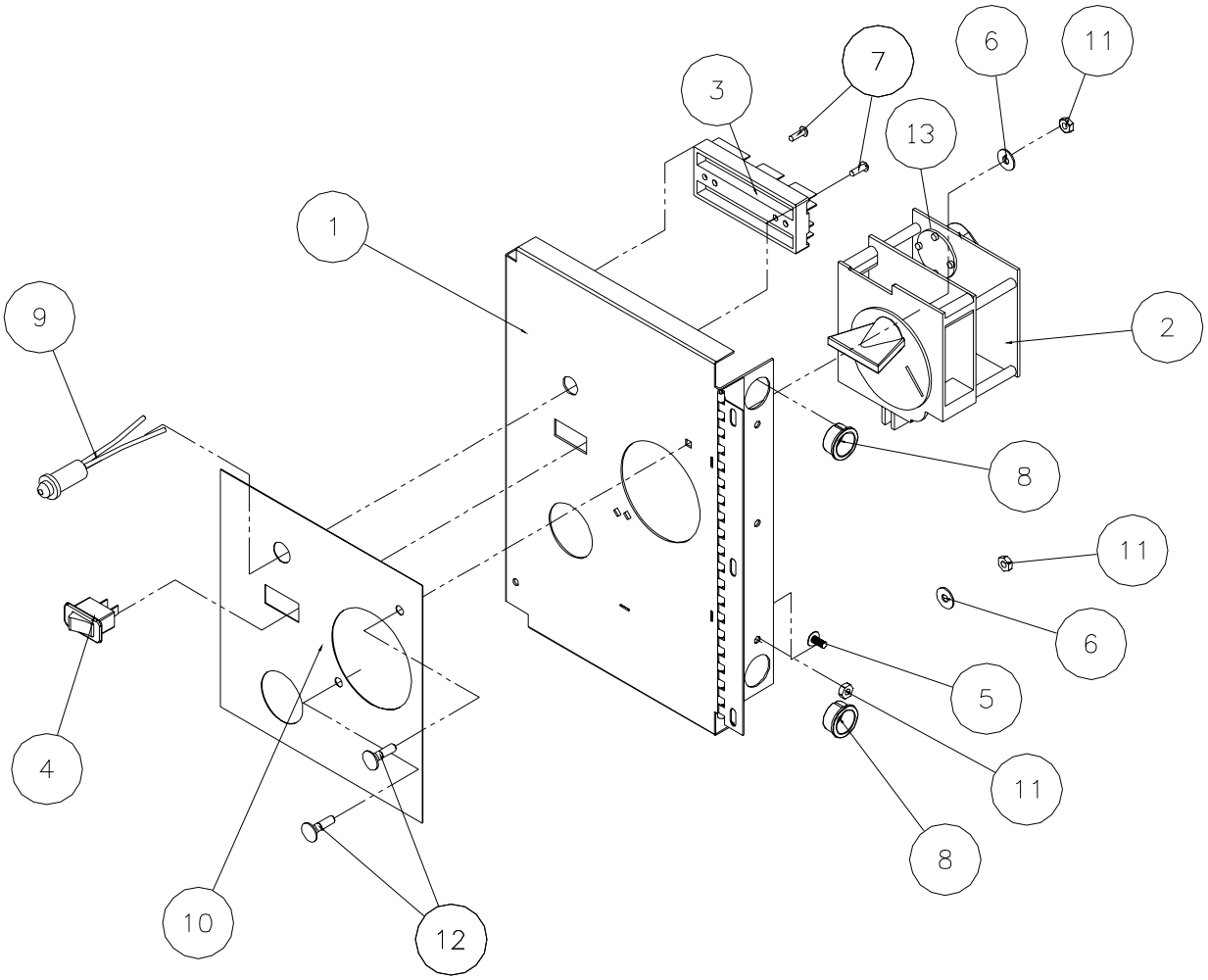
Ref. No.	Part No.	Description
1	CA-13214-0	Thermostat bracket
2	EA-00594-0	Thermostat-HI-Limit
3	EA-00606-0	Bulb thermostat
4	EA-00607-0	Thermostat knob
5	EA-00608-0	Grommet/rubber
6	SB-00828-0	Screw 8-32 X 1/2"
7	TU15010	Thermostat bracket
8	TU3266	Nut-brass 8-32
9	TU3624	Screw 6-32 X 1/4"
10	TU7733	Screw-self drilling 8-18 X 1/2"

DMP CONTROL PANEL ASSEMBLY (COIN)



Ref. No.	Part No.	Description
1	M262	Screw, mach truss HD #8-32X3/8"
2	SB-00868-0	Bushing, insulating, #OCB-875-28
3	TU14404	DMP controller OPL/COIN board
4	TU14406	DMP coin overlay
5	TU14933WH	DMP control panel welded assembly
6	TU3266	Nut, hex-brass #8-32
7	TU3400	Nut, hex #6-32
8	TUD0336	Coin drop
9	TUD0367	Nut, hex-#5-40 machine

CONTROL PANEL ASSEMBLY (COIN)



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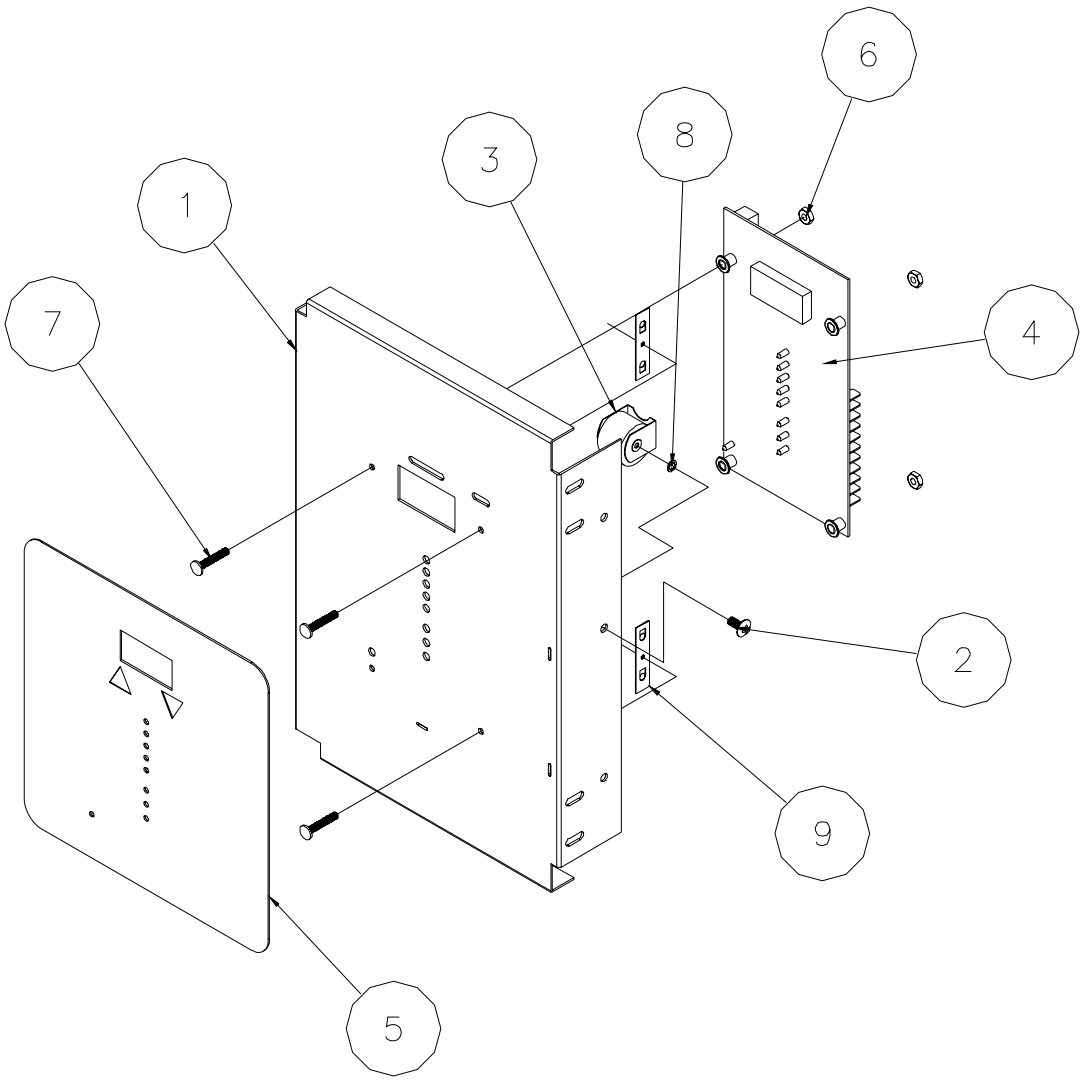
12	[illegible]4958	[illegible] [illegible] 8-32 [illegible] 1/2
13		

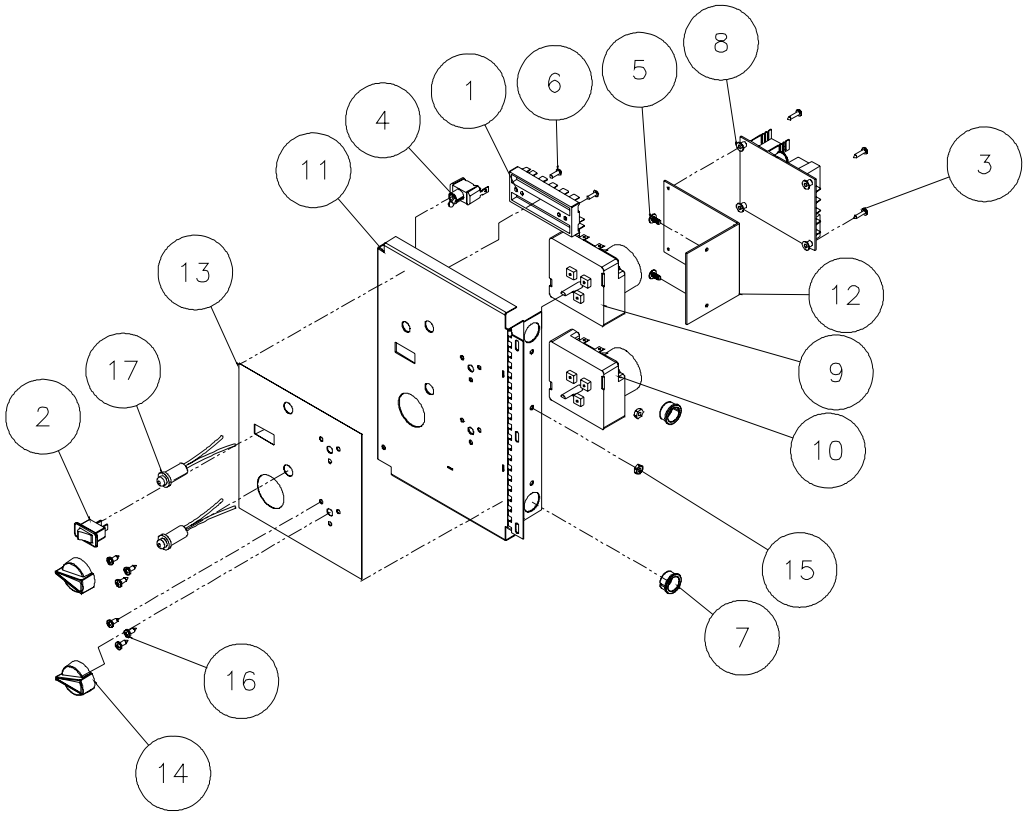
CISSELL PART N0.	VENDOR PART NO.	NO. OF PINS	TIMER MOTORS 30 MIN	60 MIN
TU3009	59-439-2	2	15	30
TU3010	59-439-3	3	10	20
TU3011	59-439-4	4	7-1/2	15
TU3012	59-439-4	5	6	12
TU3013	59-439-6	6	5	10
TU3014	59-439-8	8	3-3/4	7-1/2
TU3015	59-439-9	9	3-1/3	6-2/3
TU3016	59-439-10	10	3	6
TU3017	59-439-12	12	2-1/2	5

DMP OPL CONTROL ASSEMBLY



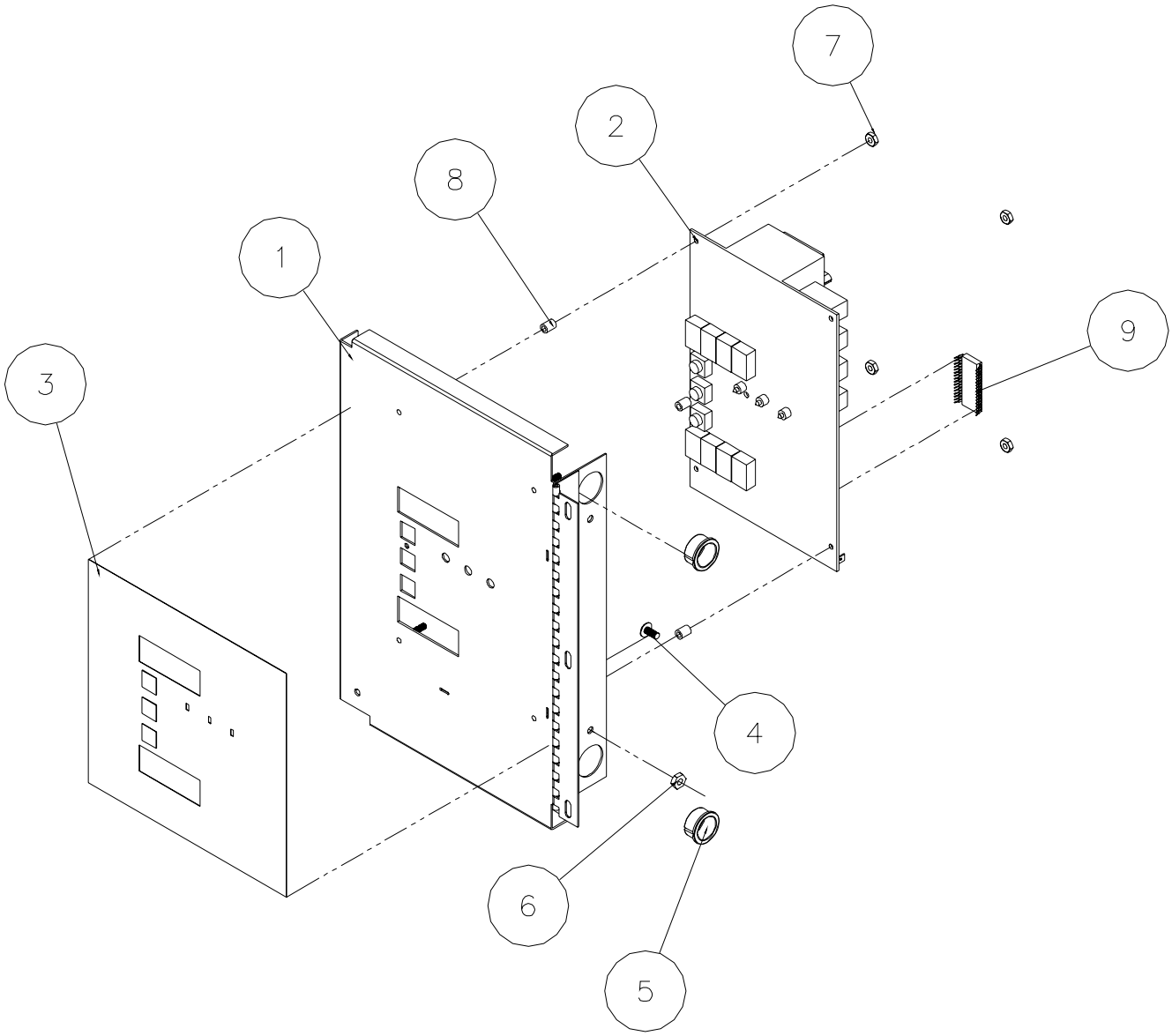
Ref. No.	Part No.	Description
	TU15254 - Reversing Control Panel Complete	
1	TU15252	Control panel
2	M262	#8-32 Screw
3	TU14137	Buzzer 24V
4	TU14404	DMP Control
5	TU15184	Overlay
6	TU3400	#6-32 Nut
7	TU12253	#6-32 Stud
8	M270	#6 Lockwasher
9	TU1771	Speed nut twin type

CONTROL PANEL ASSEMBLY (DUAL TIMER) REVERSING and NON-REVERSING



Ref. No.	Part No.	Description
	TU14871	Control panel assembly (Reversing)
	TU14859	Control panel assembly (Non-Reversing)
1	EA-00210-0	Terminal block
2	EA-00619-0	Switch - start
3	F540	Screw, sheet metal #6x5/8" long (reversing, not used on TU14859)
4	FG147	Toggle switch spst 2 position (reversing, not used on TU14859)
5	M262	Screw, machine truss HD. #8-32x3/8" long (2 req'd. for reversing and 1 req'd. for non-reversing)
6	SB-00865-0	Screw-self drilling #6-20 x 12"
7	SB-00868-0	Insulating bushing
8	TU12874	Timer, solid state (reversing, not used on TU14859)
9	TU12932	Timer 0-60 sec.
10	TU12933	Timer 0-15 sec.
11	TU14858	Control panel weldment
12	TU14931	Bracket, mounting reversing board (not used on TU14859)
13	TU14936	Overlay, non-reversing
	TU14937	Overlay, reversing
14	TU2555	Knob
15	TU3266	Nut, hex. brass #8-32 (2 req'd. for reversing and 1 req'd. for non-reversing)
16	TU7733	Screw, self drill #8-18x1/2" long
17	TUT316	Light, led 24V

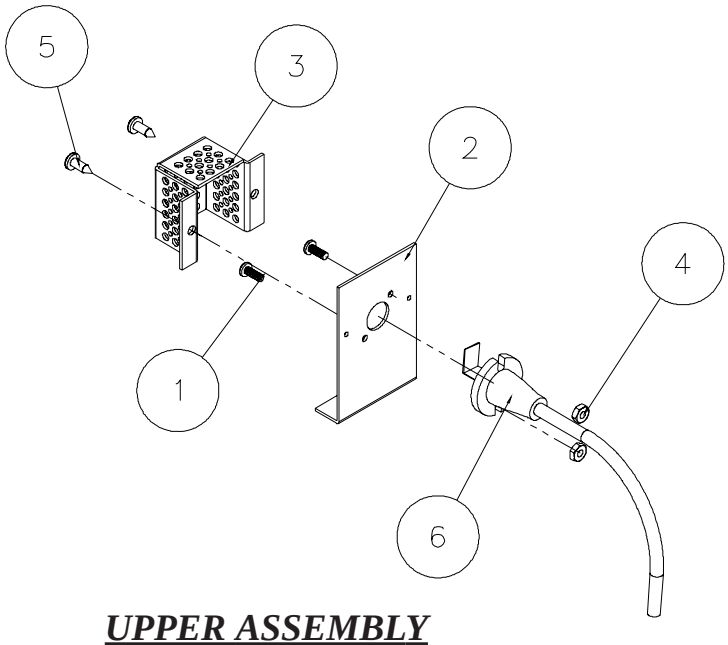
PROHC CONTROL PANEL ASSEMBLY



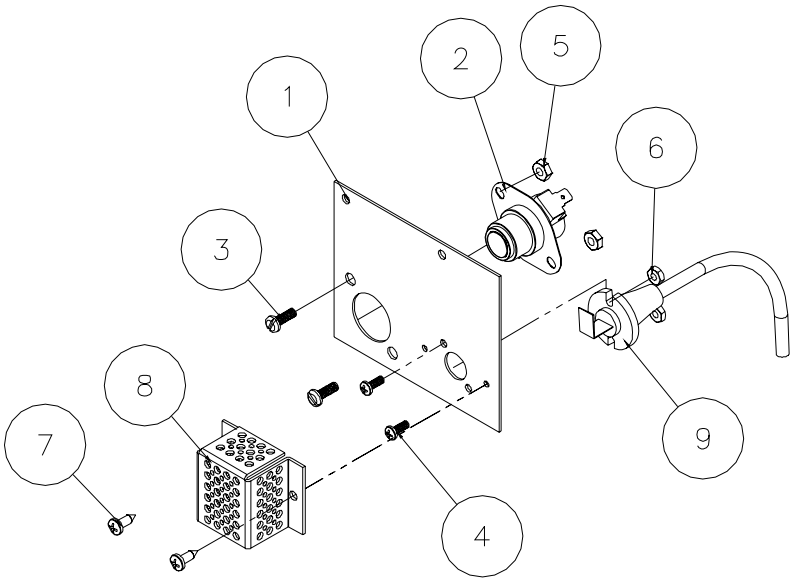
Ref. No.	Part No.	Description
	TU14864	Complete Assembly-PROHC
1	CSA-01560WH	Wiring box welded assembly
2	254/00054/00	PC board, professional
3	254/00018/00	Lable, PRO moisture controller
4	M262	Screw, machine truss #8-32x3/8" long
5	SB-00868-0	Insulating bushing
6	TU3266	Nut, hex brass #8-32
7	TU3400	Nut, hex #6-32
8	TU14701	Spacer nylon 1/4" O.D. x 5/16" long
9	TU14452	Chip, EPROM, PROHC

PROHC SENSOR ASSEMBLY - UPPER and LOWER

Ref. No.	Part No.	Description
	TU14724	PROHC Sensor assembly (upper)
1	SB-00952-0	Screw, #6-32 x 3/8" long
2	TU14693	Mounting plate upper probe
3	TU14694	Cover plate, probe
4	TU3400	Nut, #6-32
5	TU7733	Screw, self drill #8-18 x 1/2" long
6	254/00060/00	Humidity sensor



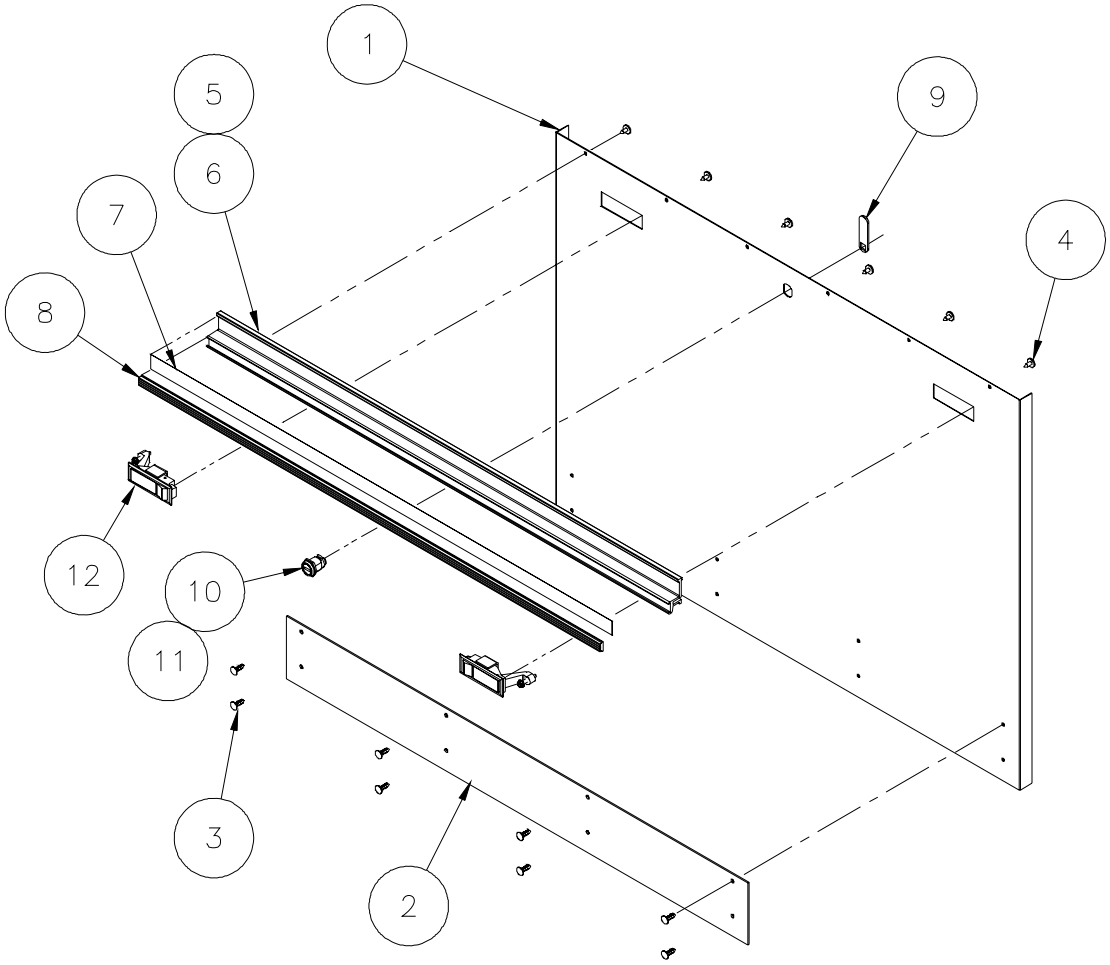
UPPER ASSEMBLY



LOWER ASSEMBLY

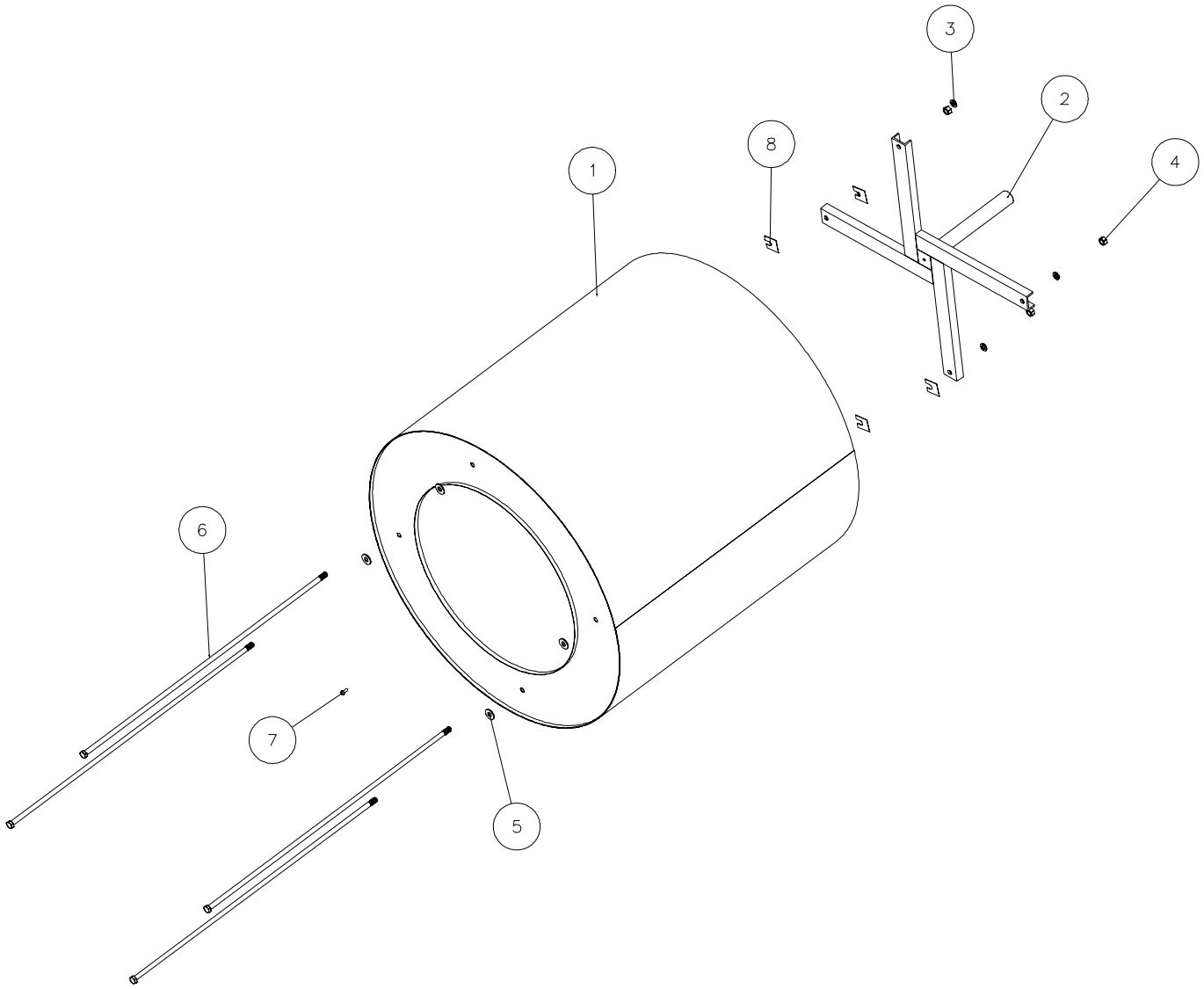
Ref. No.	Part No.	Description
	TU14723	PROHC Sensor assembly (lower)
1	CA-13067-0	Bracket (sensor)
2	EA-00594-0	Switch, 220 degrees
3	SB-00828-0	Screw, machine #8-32 x 1/2" long
4	SB-00952-0	Screw, #6-32 x 3/8" long
5	TU3266	Nut, hex brass #8-32
6	TU3400	Nut, hex brass #6-32
7	TU7733	Screw, self drill #8-18 x 1/2" long
8	TU14694	Cover, plate
9	254/00060/00	Humidity sensor

LINT DOOR ASSEMBLY



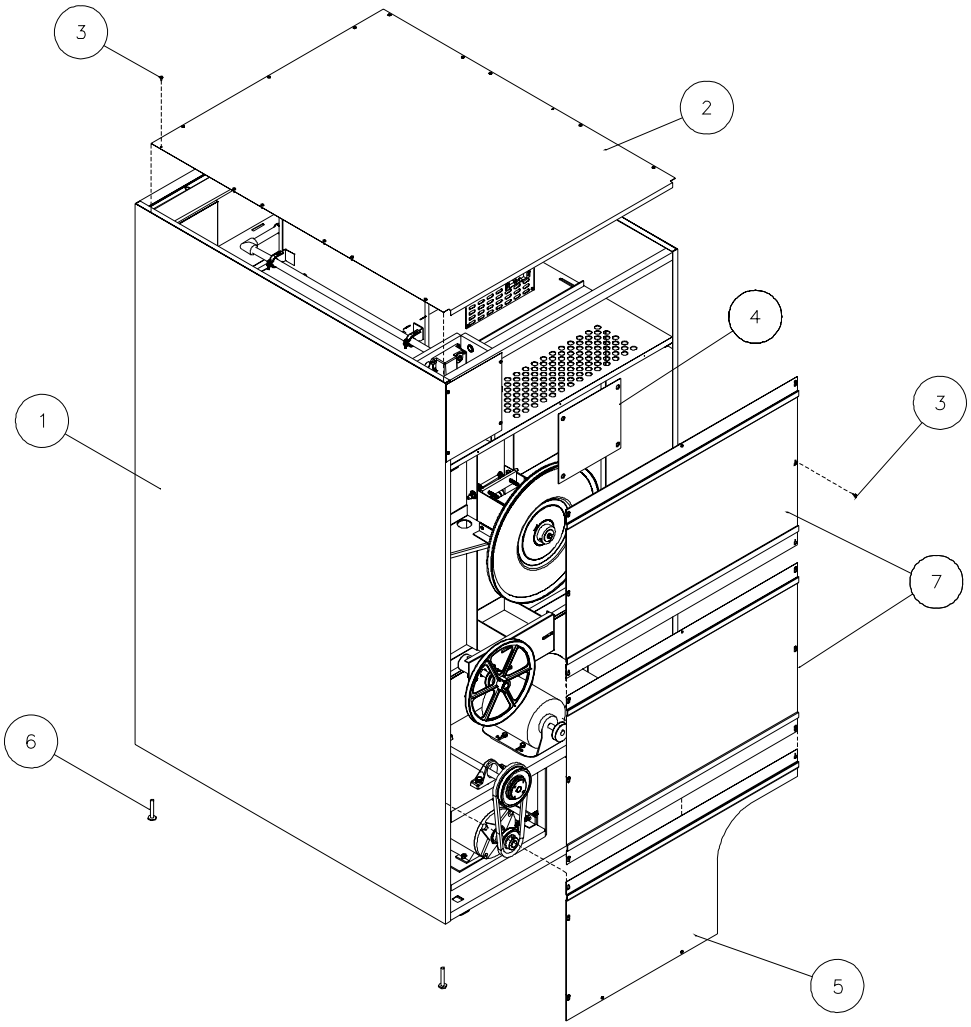
Ref. No.	Part No.	Description
	CSA-01515WH	Complete Assembly - HD75 OPL
	CSA-01594WH	Complete Assembly - HD75 Coin
1	CSA-01516WH	Lint door w/latch holes (white) OPL
1	CSA-01593WH	Lint door w/lock holes (white) Coin
2	CSA-00839-0	Kickplate
3	SB-00949-0	Fastener plastic kickplate (8 each)
4	SB-00915-0	Screw self drilling #10-16 x 5/8 (6 each)
5	TU2853	Gasket
6	CA-00697-0	Handle lint door
7	CA-00841-0	Label (not part of assembly.)
8	CA-00655-0	Trim-rubrail-specify 39" long
9	CA-11359-0	Cam lock
10	CA-00121-0	Lock
11	CA-00119-0	Key (not shown)
12	CA-00123-0	Latch - trigger (OPL models only)

BASKET & SPIDER ASSEMBLY



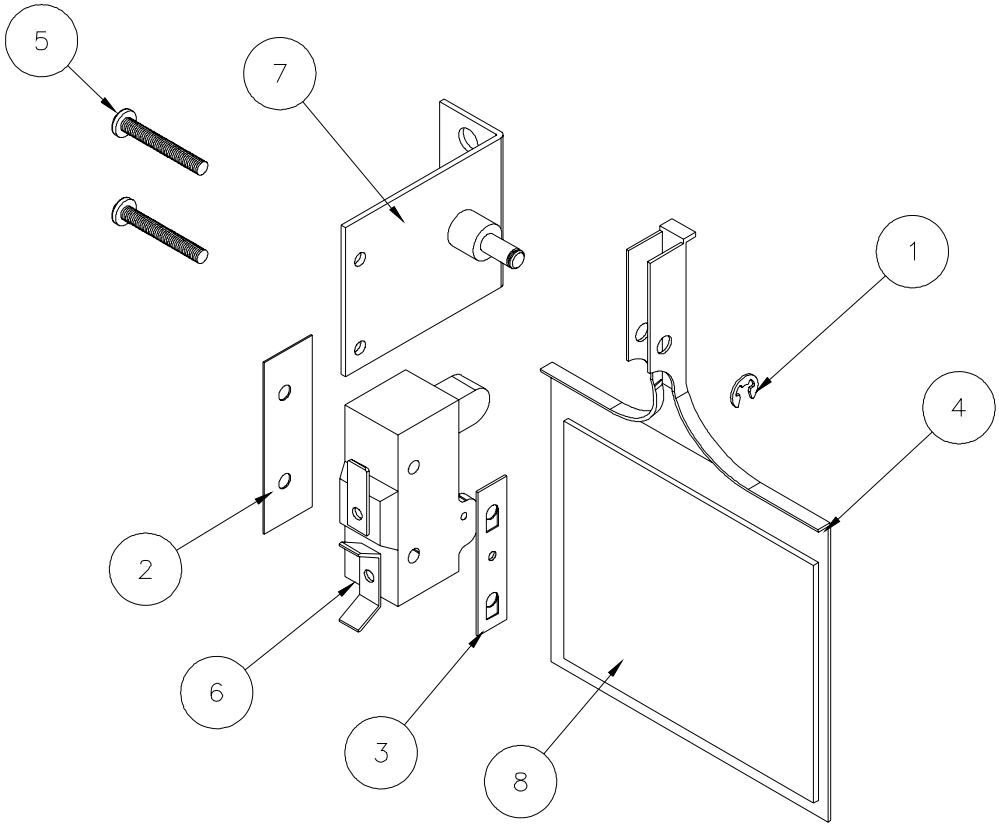
Ref. No.	Part No.	Description
	TUS14866	Basket & Spyder Asssembly HD75 - stainless steel
	TU14866	Basket & Spyder Assembly HD75 - Galvanized
1	CSA-01695-0	Stainless steel basket assembly
1	CSA-01690-0	Galvanized basket assembly
2	TU14865	Spider assembly
3	TU2831	Lock washer 1/2"
4	TU2882	Hex nut 1/2-20
5	TU2883	Washer, flat 1/2"
6	TU8297	Basket bolt
7	SB-00965-0	Screw button cap
8	TU7006	Shim, basket spider
	TU3536	Hex Jamnut, 1-14x1-1/2"
	TU3537	Hexnut, 1-14x1-1/2"

REAR VIEW



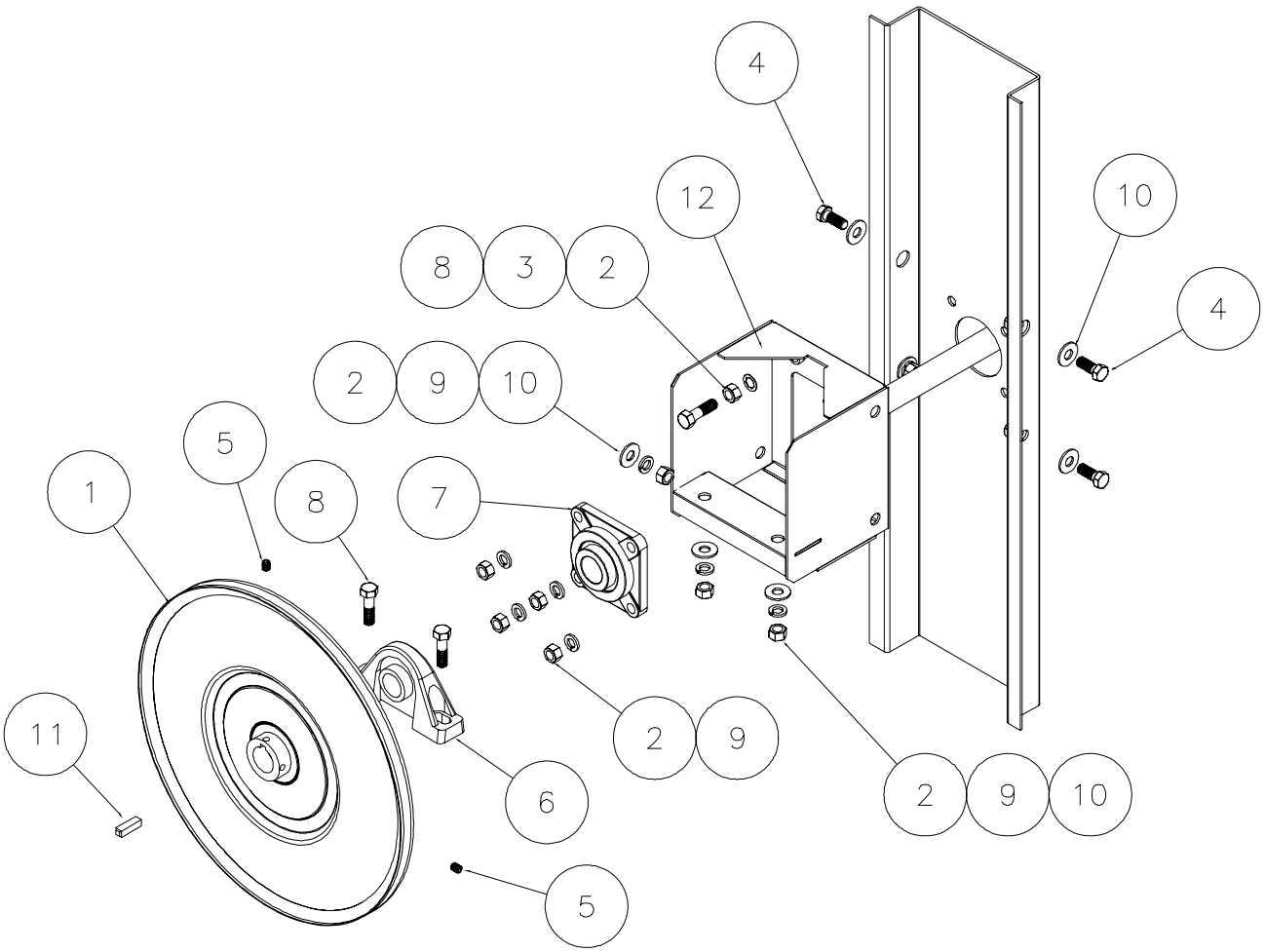
Ref. No.	Part No.	Description
1	TU14819WHT	Jacket gas/electric (white)
	TU14887WHT	Jacket steam (white)
2	TU14849	Top panel
3	TU7733	Screw self drilling 8-18 x 1/2"
4	TU14725	Cover plate
5	CA-13259-0	Lower rear cover
6	TU3211	Leveling bolts
7	CA-13272-0	Upper rear cover

AIR SWITCH ASSEMBLY

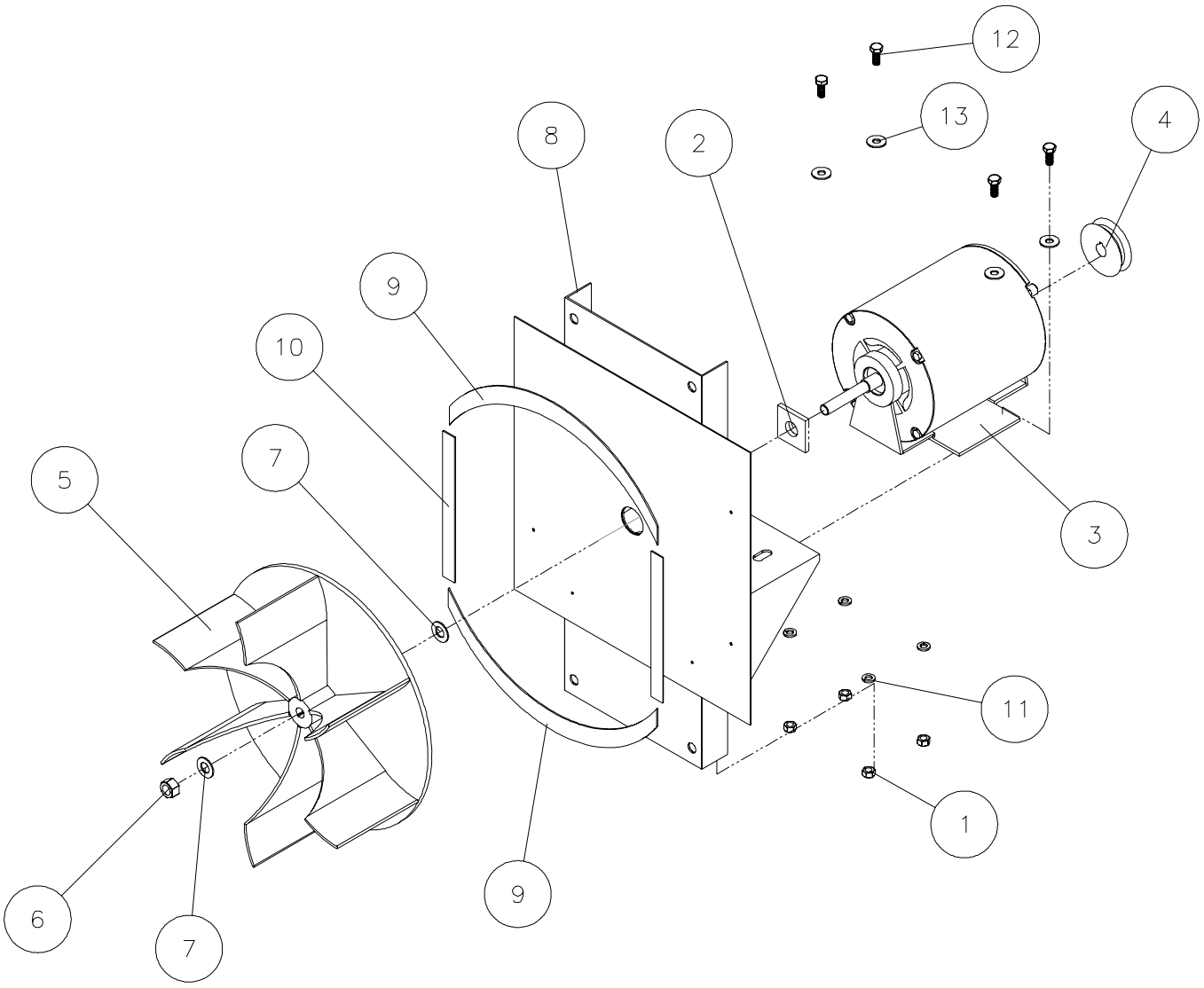


Ref. No.	Part No.	Description
	TU8206	Sail switch assembly complete
1	F888	"E" Ring
2	TU1770	Insulator
3	TU1771	#6 Tinnerman nut
4	TU2463	Actuator arm
5	TU3219	#6 x 1" Round head screw
6	TU8155	Air switch
7	TU8171	Air switch bracket
8	TU3476	Air switch decal

BASKET BEARINGS, SUPPORT, AND SHEAVE

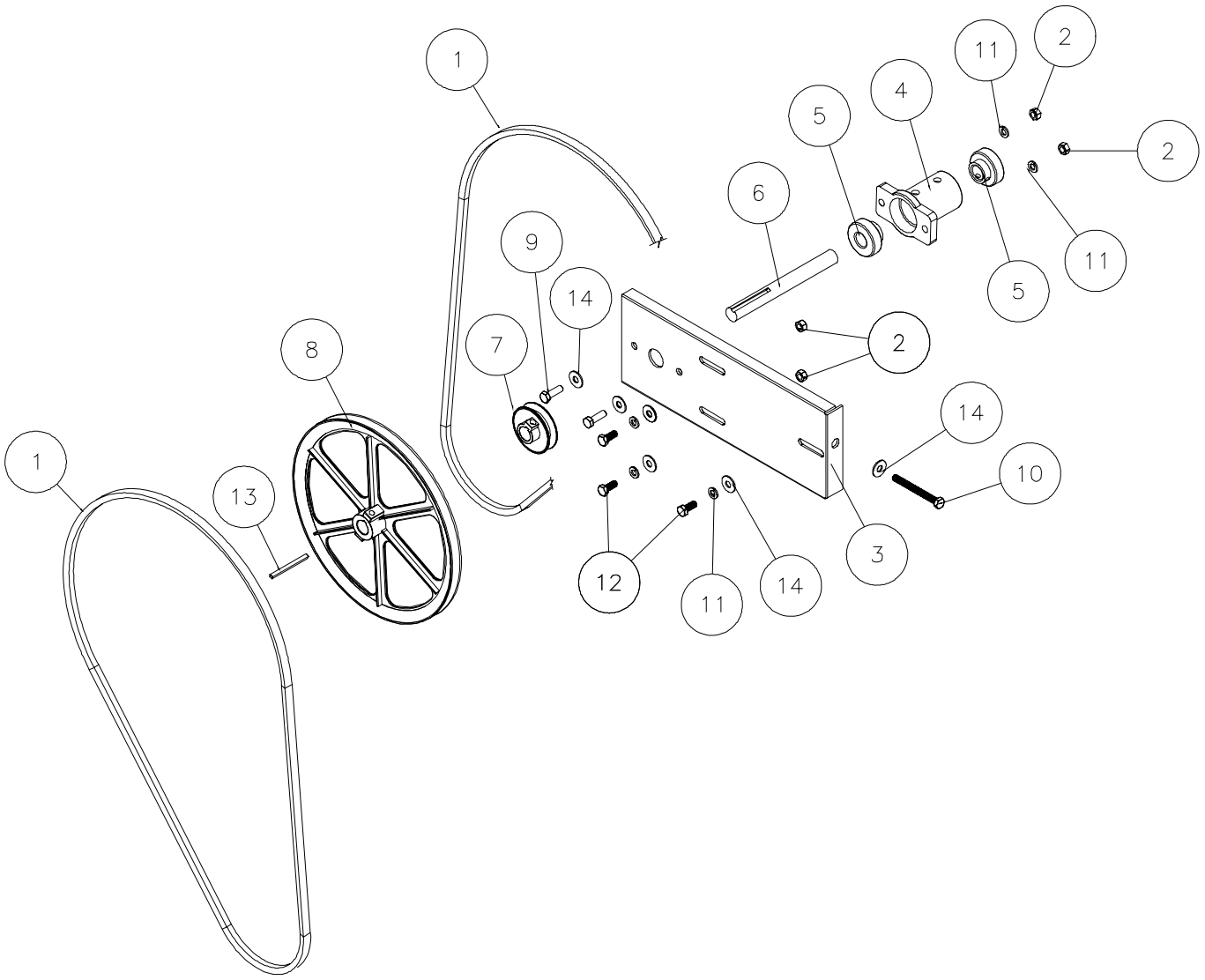


Ref. No.	Part No.	Description
1	TU12642	Pulley-basket
2	OP233	Nut, jam 1/2-13
3	OP251	Washer, lock int. tooth 1/2"
4	RC347	Screw, cap H.H. 1/2-13 X 1-1/4"
5	TU10644	Screw, set 3/8"-16 X 1/2"
6	TU13334	Bearing, pillow block
7	TU13335	Bearing, flanged
8	TU2195	Screw, 1/2-13 x 1 3/4"
9	TU2831	Washer, reg. lock 1/2"
10	TU2883	Washer, 1/2"
11	TU14973	Key 3/8 SQ x 2 1/4" long
12	TUD0411	Bearing support bracket W/A



Ref. No.	Part No.	Description
1	C249	Nut, 5/16-18 (4 each)
2	DA-00460-0	Seal
3	DA-00477-0	3/4 h.p. motor 50/60/1
	DA-00480-0	3/4 h.p. motor 50/60/3
4	TU15167	Sheave cast IR 2.4X5/8 50hz.
	TU15164	Sheave cast IR 2.1X5/8 60hz
5	DSA-00812-0	Fan 13" machined
6	SB-00813-0	Nut, 1/2-20 left hand rev. lock
7	SB-00847-0	Washer, 1" O.D. x .505 I.D. (2 each)
8	TU14869	Motor mount
9	TU2473	Gasket, curved (2 each)
10	TU2474	Gasket, cork 8" (2 each)
11	TU2814	Washer, lock 5/16" (4 each)
12	TU5439	Screw, cap HH 5/16-18 (4 each)
13	VSB130	Washer, cut 5/16" (4 each)

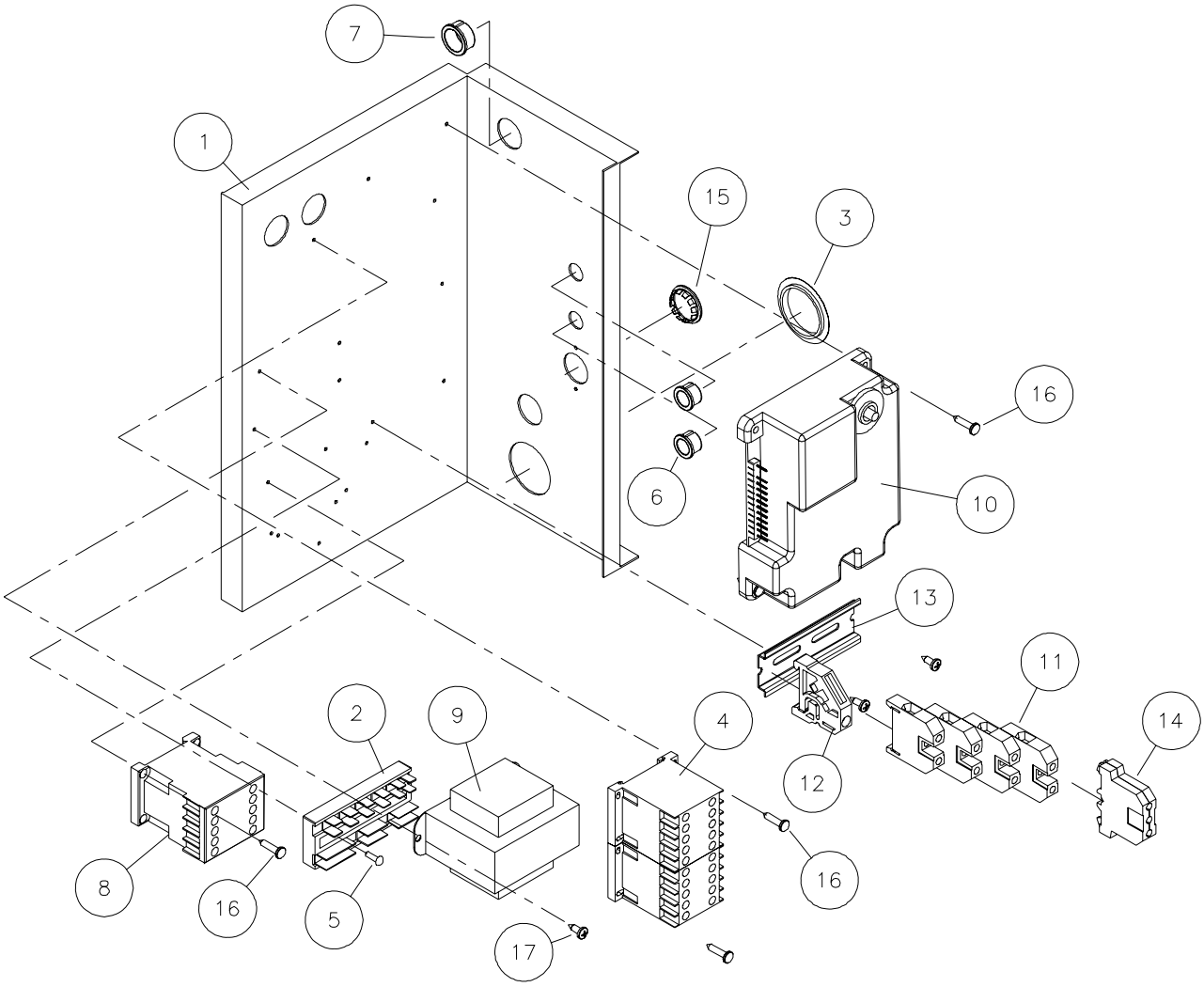
IDLER ASSEMBLY (Reversing and Non-reversing)



Ref. No.	Part No.	Description
Reversing		
1	DA-00497-0	Belt, upper (Basket)
1	DA-11908-0	Belt, lower (Motor)
Non-reversing		
1	DA-00497-0	Belt, upper (Basket)
1	DA-00525-0	Belt, lower (Motor)
2	C249	Nut, Hex 5/16-18
3	CA-12059-0	Idler adjustment plate
4	DA-00517-0	Housing, idler bearing
5	DA-00518-0	Bearing
6	DA-11711-0	Idler shaft
7	DA-11901-0	V-belt pulley
8	DA-11904-0	Idler pulley 11”
9	FB124	Screw 5/16-18x1”

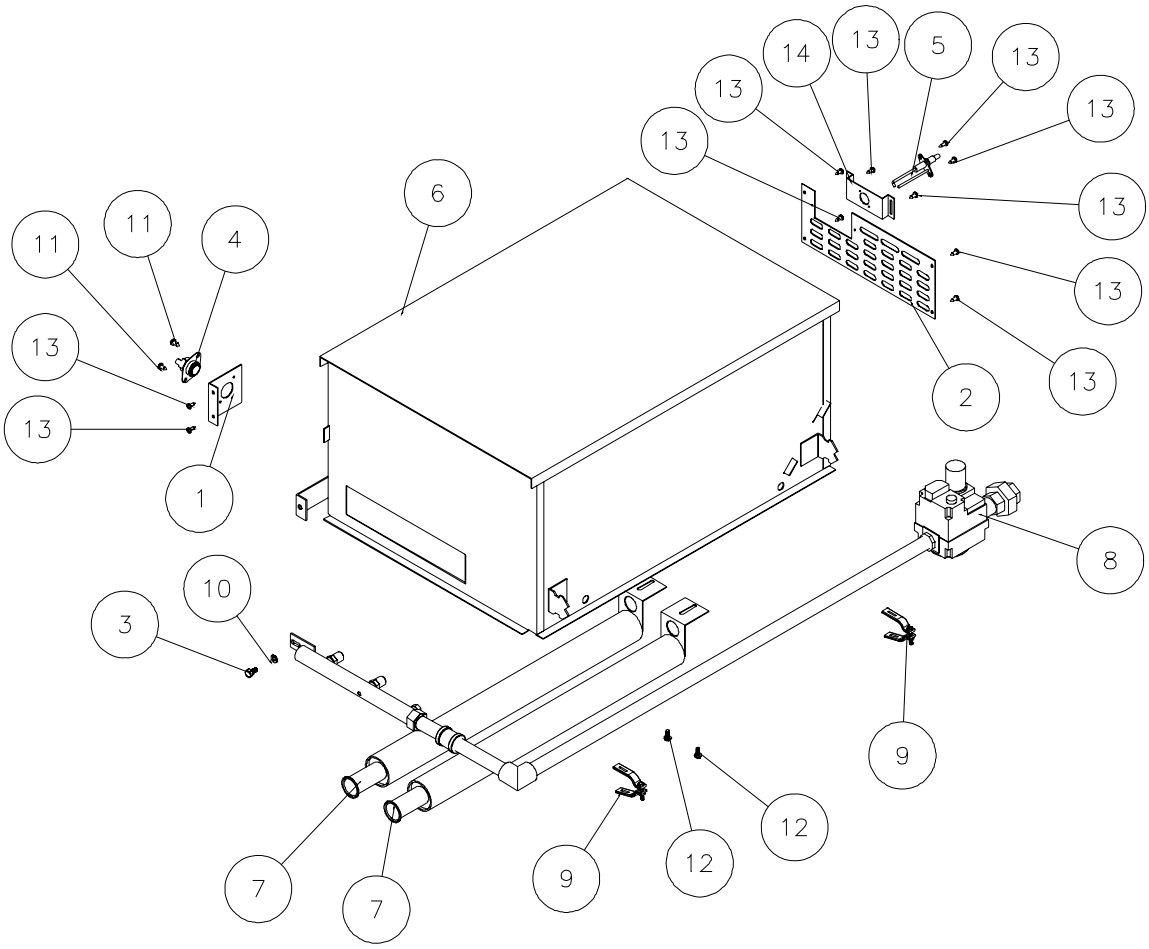
Ref. No.	Part No.	Description
10	SB-00935-0	Screw 5/16-18x3”
11	TU2814	Lock Washer 5/16"
12	TU5439	Screw 5/16-18x1"
13	TUD0187	Key 3/16” square 2 1/2”
14	VSB130	Washer 5/16"

REAR CONTROL PANEL ASSEMBLY



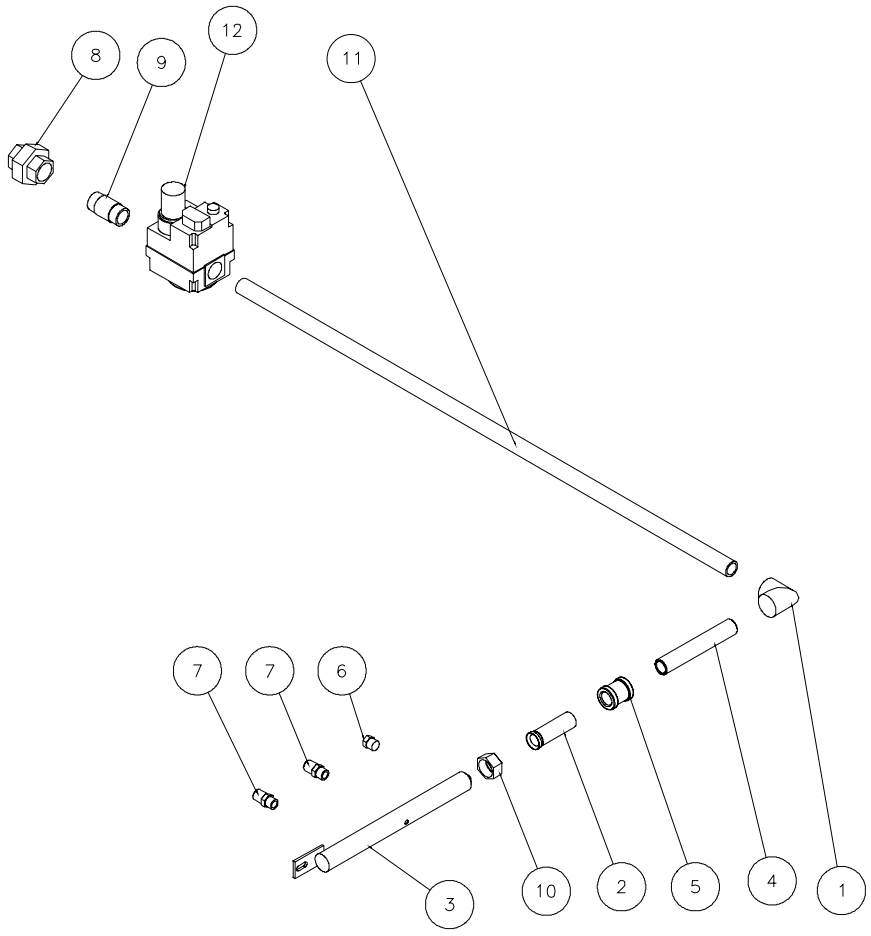
Ref. No.	Part No.	Description
1	CA-13248-0	Rear wiring box
2	EA-00210-0	Terminal block
3	EA-00680-0	Plug knock out
4	EA-00685-0	Reverse control, 24V coil
5	SB-00865-0	Screw, phillips head
6	SB-00867-0	Bushing, insulating
7	SB-00868-0	Bushing, insulating
8	TU13463	Contactor, 24VAC
9	TU13480	Transformer, 200-240V/24VA
10	TU14176	C.E. Ignitor module
	GA-00765-0	Non-C.E. Ignitor module
11	TU14958	T-Block
12	TU14959	T-Block end
13	TU14985	Dim rail
14	TU15007	T-Block ground end
15	TU2490	Plug, button
16	TU2793	Screw self drilling 8- 18 x 3/4”
17	TU7733	Screw self drilling 8-18 x 1/2”

GAS HEATING UNIT (NATURAL & LP GAS)



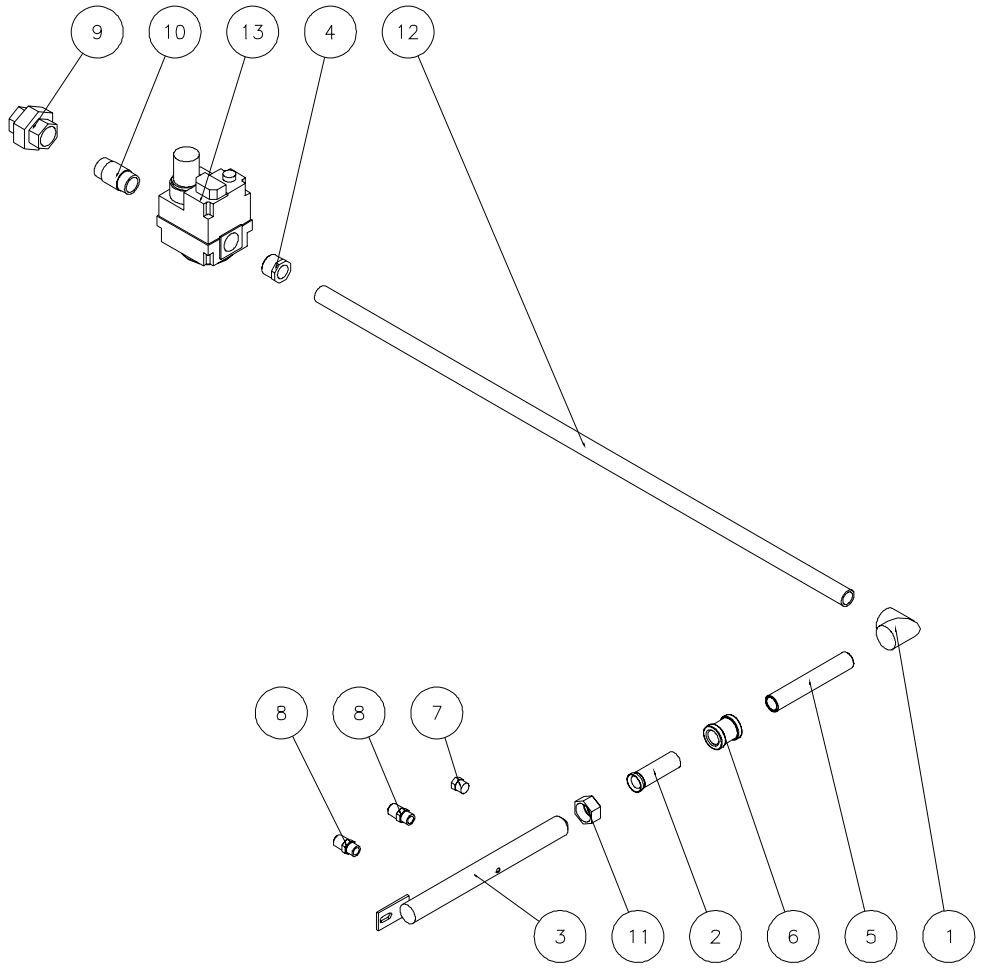
Ref. No.	Part No.	Description
	TU14827	Assembly Natural gas bonnet
	TU14828	Assembly LP bonnet
1	GSA-11028-0	Bracket, HI limit
2	CA-13251-0	Burner cover plate
3	C836	Screw, hex 1/4-20
4	EA-00245-0	Thermostat, 330 degree F
5	GA-00764-0	Electrode / straight
6	GSA-00791-0	Burner box housing
7	TU14505	Burner w/bracket
8	TU14824	Manifold & valve assembly (NG) see separate page.
	TU14826	Manifold & valve assembly (LP) see separate page.
9	TU2226	Bracket assembly
10	TU2846	Lockwasher 1/4”
11	TU2878	Screw
12	TU6263	Screw, hex
13	TU7733	Screw self drilling 8-18 x 1/2"
14	TUD0242	Bracket, mount-electrode

MANIFOLD ASSEMBLY (NATURAL GAS)



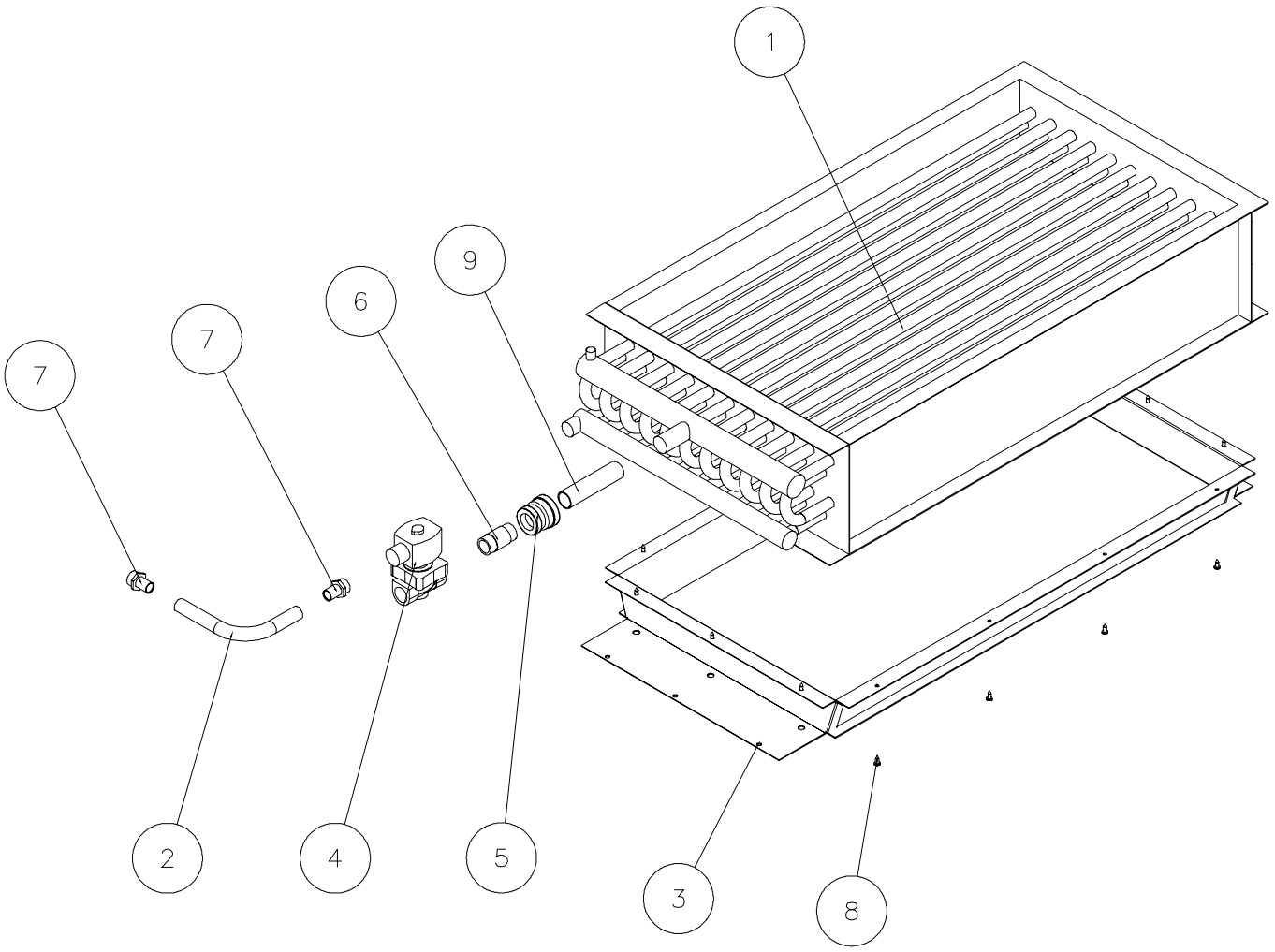
Ref. No.	PartNo.	Description
1	390501053	Elbow, 1/2" 90 degree
2	664946146	Pipe - tail
3	GA-11006-0	Manifold
4	OP296	Nipple, 1/2" x 5"
5	SC505	Coupling, pipe 1/2"
6	TU10946	Plug, pipe (large)
7	TU3539	Orfice, burner
8	OP314	Union, 1/2"
9	TU4651	Nipple, 1/2" x 6"
10	TU6862	Nut, union - gas
11	TU7358	Pipe, 1/2" x 34 1/2"
12	TU14178	Valve, gas NG 1/2"

MANIFOLD ASSEMBLY (LP GAS)



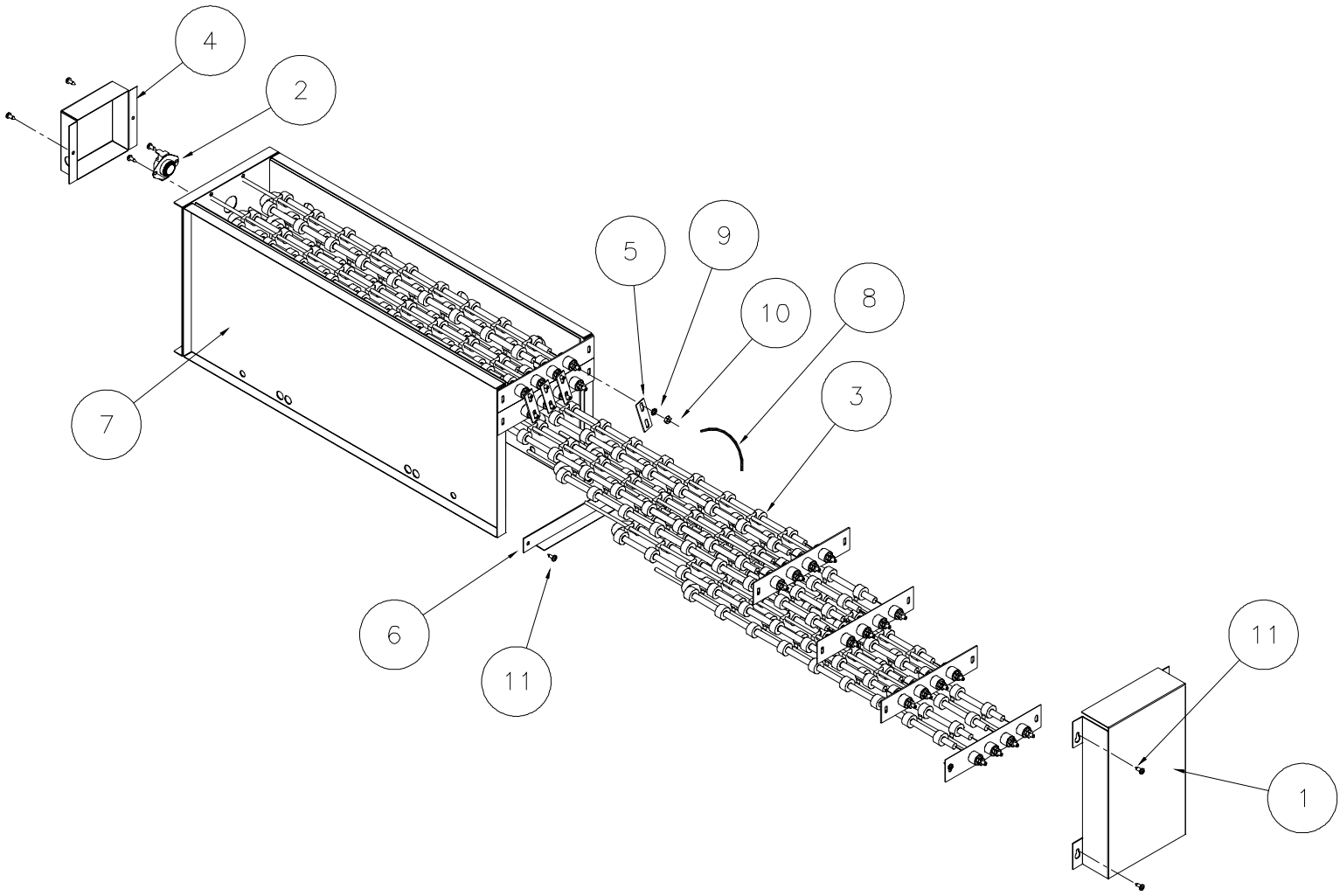
Ref. No.	Part No.	Description
1	390501053	Elbow, 1/2" 90 degree
2	664946146	Pipe - tail
3	GA-11006-0	Manifold
4	OP267	Bushing, steel 3/4"
5	OP296	Nipple, 1/2" x 5"
6	SC505	Coupling, pipe 1/2"
7	TU10946	Plug, pipe (large)
8	TU3539	Orfice, burner
9	TU4600	Union, 3/4"
10	TU4608	Nipple, 3/4" x 2"
11	TU6862	Nut, union - gas
12	TU7358	Pipe, 1/2" x 34 1/2"
13	TUX435	Valve, gas LP 3/4"

STEAM HEATING UNIT



Ref. No.	Part No.	Description
	CSA-01670-0	Steam heating bonnet assembly
1	CA-13221-0	Steam coil
2	CFB0900	Cable, GREENFIELD 1/2"X9"
3	CSA-01602-0	Adaptor, w/a
4	TU13517	Valve, steam solenoid 3/4" 24V
5	TU2735	Reducer, pipe 1"x3/4"
6	TU4608	Nipple, 3/4"x2" black
7	TU4790	Connector
8	TU7733	Screw, self dr. #8-18x1/2"
9	TU9656	Nipple, 1"x4" black

ELECTRIC BONNET ASSEMBLY



Ref. No.	Part No.	Description
	TU14829	Electric bonnet assembly
1	CA-11984-0	Rear heater box cover
2	EA-00243-0	Bonnet high limt switch
3	EA-00472-0	Heater element (6 each)
4	EA-10232-0	Switch cover
5	EA-10417-0	Jumper bars (16 each)
6	EA-11613-0	Heater box back
7	ESA-00610-0	Heater box housing
8	ESA-00948-0	Jumper (6 each)
9	TU11613	#10 Ext. tooth washer (24 each)
10	TU2842	#10-32 Hex nut (24 each)
11	TU7733	Screw, self dr. #8-18 x 1/2" (14 each)